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Vol. I

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1942

No. 299

JERSEY CENTRAL POWER & LIGHT COMPANY,
PETITIONER,

vs.

FEDERAL POWER COMMISSION

No. 329

NEW JERSEY POWER & LIGHT COMPANY,
PETITIONER,

vs.

FEDERAL POWER COMMISSION

ON WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

PETITIONS FOR CERTIORARI FILED { AUGUST 13, 1942.
AUGUST 22, 1942.

CERTIORARI GRANTED OCTOBER 12, 1942.

TRANSCRIPT OF RECORD
VOLUME I.

IN THE

United States Circuit Court of Appeals

For the Third Circuit

No. 7256 October Term, 1939

JERSEY CENTRAL POWER & LIGHT COMPANY

Petitioner

v.

FEDERAL POWER COMMISSION

Respondent

No. 7257 October Term, 1939

NEW JERSEY POWER & LIGHT COMPANY

Petitioner

v.

FEDERAL POWER COMMISSION

Respondent

PETITIONS FOR REVIEW FROM AN ORDER OF THE FEDERAL POWER COMMISSION

Original Transcript of Record Filed December 29, 1939

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UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Commissioners:
Clyde L. Seavey, Acting Chairman; Claude L. Draper, Basil Manly, John W. Scott.

June 7, 1938.

Docket No. IT-5518

In the Matter of: New Jersey Power & Light Company and Jersey Central Power & Light Company

I.

ORDER TO SHOW CAUSE

(Entered June 7, 1938)

It appearing to the Commission that:

(a) New Jersey Power & Light Company and Jersey Central Power & Light Company are public utilities subject to the jurisdiction of the Federal Power Commission;

(b) The New Jersey Power & Light Company, on March 11, 1938, allegedly acquired 341,350 shares of the common stock of Jersey Central Power & Light Company without first having secured the approval of the Commission as required by Section 203(a) of the Federal Power Act.

(c) The Federal Power Act, in Section 203(a),

provides that no public utility shall purchase, acquire, or take any security of any other public utility without first having secured an order of the Federal Power Commission authorizing it to do so;

The Commission *orders* that:

The New Jersey Power and Light Company submit in writing under oath on or before June 24, 1938, detailed information concerning its reported acquisition of said 341,350 shares of common stock of Jersey Central Power & Light Company in apparent violation of Section 203(a) of the Federal Power Act and, on or before said above date, show cause, if any, why this Commission should not proceed to enforce the requirements of said Act.

By the Commission,

LEON M. FUQUAY,
Secretary.

II.

ANSWER OF NEW JERSEY POWER & LIGHT COMPANY TO ORDER TO SHOW CAUSE

(Filed June 24, 1938)

New Jersey Power & Light Company, the Respondent, hereby makes return to the Order to Show Cause issued by the Federal Power Commission under date of June 7, 1938, in the above entitled matter as follows:

1. Respondent, denying, as hereinafter set forth, that Jersey Central Power & Light Company is a public utility subject to the jurisdiction of the Federal Power Commission and therefore denying jurisdiction of the Federal Power Commission over the purchase by Respondent of any securities of said Jersey Central Power & Light Company, sets forth and avers for the information of the Federal Power Commission the following facts:

On March 14, 1938, Respondent, after obtaining the approval of the Board of Public Utility Commissioners of the State of New Jersey by decision dated March 11, 1938, acquired 341,350 shares of the Common Stock of Jersey Central Power & Light Company. Attached hereto marked Exhibit "A" and made a part hereof is a copy of said decision of said Board of Public Utility Commissioners. All of the conditions contained in the aforesaid decision of the Board of Public Utility Commissioners, dated March 11, 1938, have been complied with.

2. On information and belief Respondent avers that Jersey Central Power & Light Company does not own or operate any facilities for the transmission of electric energy in interstate commerce, nor does it own or operate

any facilities for the sale of electric energy at wholesale in interstate commerce, nor does it own or operate any facilities of any kind subject to the jurisdiction of the Federal Power Commission; that the facilities of Jersey Central Power & Light Company are used solely for the generation of electric energy, in local distribution within the State of New Jersey and the transmission of electric energy in intrastate commerce within the State of New Jersey. Respondent is, therefore, advised by counsel that Jersey Central Power & Light Company is not a public utility subject to the jurisdiction of the Federal Power Commission and verily believes the same and therefore denies that Jersey Central Power & Light Company is a public utility as defined by the Federal Power Act.

3. Respondent is advised by counsel and verily believes that no approval of the Federal Power Commission was required by law to the acquisition by Respondent of the shares of stock of Jersey Central Power & Light Company, as hereinbefore set forth, and denies that it has violated Section 203(a), or any other provision, of the Federal Power Act in connection with the acquisition of stock of Jersey Central Power & Light Company.

Wherefore, Respondent respectfully requests that the Order to Show Cause issued in the above entitled proceeding, under date of June 7, 1938, be vacated, annulled and dismissed.

NEW JERSEY POWER & LIGHT COMPANY
By H. B. ALLEN,
Vice President.

Signed and dated this 23rd day of June, 1938.

State of New York,
County of New York, ss:

H. B. Allen, being duly sworn, deposes and says that he is Vice President of New Jersey Power & Light Com-

pany and that the facts set forth in the foregoing answer are true and correct to the best of his knowledge, information and belief.

H. B. Allen.

Sworn to before me this 23rd day of June, 1938.
Dorothy K. Richards,
Notary Public.

Kings Co. Clks. No. 63, Regs. No. 170.
N. Y. Co. Clks. No. 154, Regs. No. OR100.
Commission expires March 30, 1940.

EXHIBIT A

STATE OF NEW JERSEY

BOARD OF PUBLIC UTILITY COMMISSIONERS

In the Matter of the Application of The New Jersey Power & Light Company for Approval of the Exchange of Certain of its Investments for Other Securities

---

DECISION

Wall, Haight, Carey & Hartpense, by Edward J. O'Mara and William F. Morris, for the Petitioner

---

The petition of the New Jersey Power & Light Company seeks the Board's approval of the exchange of 53,850 shares of $6.00 Cumulative Preferred Stock of Metropolitan Edison Company, a Pennsylvania corporation, for 341,350

shares of Common Stock of Jersey Central Power & Light Company, a New Jersey corporation.

Upon the hearing of the application it appeared (1) that the market value of the $6.00 Cumulative Preferred Stock of Metropolitan Edison Company was of an estimated value of $4,312,308.00 and (2) that there is no current market price quoted on the Common Stock of the Jersey Central Power & Light Company and (3) that 712,411 shares of the Common Stock of Jersey Central Power & Light Company are pledged to secure $20,000,000.00 principal amount of debentures of National Public Service Corporation, which debentures have a current market value of 45 per cent of par or an aggregate market value of $9,000,000.00 which is equivalent to $12.63 per share for the Common Stock of the Jersey Central Power & Light Company pledged as collateral for said debentures, and that, based on that value, 341,350 shares of Common Stock of Jersey Central Power & Light Company would have a value of $4,312,308.00.

And it further appeared that the said $20,000,000.00 principal amount of the National Public Service Corporation debentures are the subject of litigation presently pending before the Courts in the State of New York.

And it now appearing that, in view of the absence of definite proof of the value of the shares of the Common Stock of the Jersey Central Power & Light Company, it would not be in the public interest to approve the proposed exchange of securities unless adequate security is pledged by escrow to insure to the New Jersey Power & Light Company the equivalent of the full value of the said $6.00 Cumulative Preferred Stock of the Metropolitan Edison Company, in the event that the sale of the Common Stock of the Jersey Central Power & Light Company pledged as collateral for the debentures of National Public Ser-

vice Corporation as aforesaid does not result in a price of $12.63 per share for said Common Stock. In such event recourse should then be had to additional securities as aforesaid in an amount sufficient to equal $4,312,308.00.

The Board hereby approves the exchange of 53,850 shares of $6.00 Cumulative Preferred Stock of Metropolitan Edison Company for 341,350 shares of the Common Stock of Jersey Central Power & Light Company and approves the transfer to the petitioner of said common stock on the books of the Jersey Central Power & Light Company upon the following conditions:

1. That the applicant will pledge in escrow with any bank or trust company of the State of New Jersey authorized to act as an escrow agent or representative under an escrow agreement to be approved by the Board, $1,000,000.00 principal amount of the Mohawk Valley Company 6% Consolidated Refunding Gold Bonds due November 1, 1981 and $1,000,000.00 principal amount of the Mohawk Valley Company 6% Consolidated Refunding Gold Bonds due November 1, 1991. In the event that the Common Stock of the Jersey Central Power & Light Company brings less than $12.63 per share at judicial sale, then the securities pledged under this provision shall be used to answer and satisfy the amount by which the value of 341,350 shares of common stock of Jersey Central Power & Light Company at said sale price is less than $4,312,308.00.

2. That this approval does not extend to the value of the property or to the accounts of any of the companies involved in this transaction, and further

3. That any entries made on the books of the applicant company shall be identified so as to permit of ready analysis.

4. That said exchange is approved without prejudice to the authority of the Board of the State with respect to rates, valuations, services or any other matter whatsoever in any future proceedings.

5. That the applicant company shall file with the Board within ten days from the date hereof an escrow agreement in accordance with condition (1) above, which shall be satsisfactory to the Board.

6. That the applicant company shall file with the Board within ten days from the date hereof its unqualified acceptance of the conditions herein stated; otherwise the approval herein granted shall be null and void.

Dated, March 11, 1938.

Board of Public Utility Commissioners,
By (signed) Thomas L. Hanson,
(Seal) *Commissioner.*

(signed) Frank J. Reardon,
Commissioner.

Attest:
(signed) Emmett T. Drew,
Secretary.

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Commissioners:

Clyde L. Seavey, Acting Chairman; Basil Manly, John W. Scott. Claude L. Draper not participating.

July 5, 1938.

Docket No. IT 5518

In the Matter of: New Jersey Power & Light Company and Jersey Central Power & Light Company

III.

ORDER INSTITUTING INVESTIGATION AND SETTING DATE OF HEARING

(Entered July 5, 1938)

It appearing to the Commission that:

(1) By order to show cause in the above matter adopted June 7, 1938, New Jersey Power & Light Company (hereinafter referred to as respondent) was required to submit on or before June 24, 1938, detailed information concerning its reported acquisition of 341,350 shares of common stock of Jersey Central Power & Light Company in apparent violation of Section 203(a) of the Federal Power Act, and show cause why the Commission should not proceed to enforce the requirements of said Act;

(2) On June 24, 1938, the respondent filed a return to said order to show cause wherein it avers that:

(a) On March 14, 1938, respondent, after obtaining the approval of the Board of Public Utility Commissioners of the State of New Jersey, by decision dated March 11, 1938, acquired 341,350 shares of the common stock of Jersey Central Power & Light Company, and that all of the conditions contained in said decision had been complied with;

(b) Jersey Central Power & Light Company is not a public utility as defined by the Federal Power Act;

(c) No approval of the Federal Power Commission was required by law to the acquisition by respondent of said shares of stock of Jersey Central Power & Light Company, and that respondent has not violated Section 203(a) or any other provision of the Act in connection with the acquisition of such stock;

The Commission, having considered the matters set forth in the order to show cause and the return thereto, upon its own motion, *orders* that:

(1) An investigation be and is hereby instituted to determine all facts, conditions, practices or matters relating to the transaction whereby the respondent on March 14, 1938, acquired 341,350 shares of common stock of Jersey Central Power & Light Company;

(2) A public hearing on said matter be held on August 29, 1938, at 10 A. M. in the hearing room of the Commission, Hurley-Wright Building, 1800 Pennsylvania Avenue, N. W., Washington, D. C., to ascertain:

(a) Whether or not the transaction described in (1) hereinabove involved the purchase, acquisition,

or taking by a public utility of any security of any other public utility within the meaning of Section 203(a) of the Federal Power Act;

(b) All facts pertaining to any other issue raised by the order to show cause and the return thereto.

By the Commission,
LEON M. FUQUAY,
Secretary.

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Commissioners:

Clyde L. Seavey, Acting Chairman; Claude L. Draper, Basil Manly. John W. Scott not participating.

July 29, 1938.

Docket No. IT-5518

In the Matter of: New Jersey Power & Light Company and Jersey Central Power & Light Company

IV.

ORDER POSTPONING HEARING
(Entered July 29, 1938)

It appearing to the Commission that:

Counsel for Jersey Central Power & Light Company has requested a two weeks' postponement of the public hearing in this cause now assigned to be held on August 29, 1938, in accordance with the order of the Commission adopted on July 5, 1938;

The Commission *orders* that:

For good cause shown, the public hearing in the above cause now set for August 29, 1938, be and the same is hereby postponed to September 13, 1938, at the same time and place.

By the Commission,
LEON M. FUQUAY,
Secretary.

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Commissioners:

Clyde L. Seavey, Acting Chairman; Claude L. Draper, Basil Manly, John W. Scott.

September 8, 1938.

Docket No. IT-5518

In the Matter of: New Jersey Power & Light Company and Jersey Central Power & Light Company

V.

ORDER POSTPONING HEARING
(Entered Sept. 8, 1938)

It appearing to the Commission that:

By order of the Commission, adopted July 29, 1938, a public hearing in the above cause was set for September 13, 1938;

The Commission on its own motion *orders* that:

The public hearing in the above cause now set for September 13, 1938, be and the same is hereby postponed to September 27, 1938, at the same time and place.

By the Commission,
J. H. Gutride,
Acting Secretary.

VI.

DESIGNATION OF EXAMINER

(Filed Sept. 8, 1938)

Hearing date: Sept. 27, 1938

The Commission, by order adopted July 5, 1938, having directed that a hearing be held in the above matter, Carroll B. Spencer is hereby designated as Examiner to preside at said hearing, pursuant to the order of the Commission adopted January 28, 1936.

(Sig.) C. L. SEAVEY
Acting Chairman

Dated: Sept. 8, 1938.

VII.

PETITION TO INTERVENE
(Filed Sept. 27, 1938)

To the Federal Power Commission:

The petition of Jersey Central Power & Light Company (hereinafter called "petitioner") respectfully represents that:

1. Petitioner is a corporation of the State of New Jersey, having its principal office at 501 Grand Avenue, Asbury Park, N. J., and is engaged in the business of generating, transmitting and distributing electric energy for sale wholly within the said State.

2. On June 7, 1938 the Federal Power Commission (hereinafter called the "Commission") issued its Order to Show Cause in the proceeding above captioned, requiring New Jersey Power & Light Company, respondent, to submit detailed information concerning its acquisition of 341,350 shares of the common capital stock of petitioner, in apparent violation of Section 203(a) of the Federal Power Act. Said order recites, *inter alia*, that it appears to the Commission that petitioner is a public utility subject to the Commission's jurisdiction.

3. On July 5, 1938 the Commission issued its Order Instituting Investigation and Setting Date of Hearing, wherein a public hearing was ordered to ascertain, *inter alia*:

"Whether or not the transaction described in (1) hereinabove* involved the purchase, acquisition, or taking by

*(That is, the acquisition by respondent of 341,350 shares of the common capital stock of petitioner.)

a public utility of any security of any other public utility within the meaning of Section 203(a) of the Federal Power Act."

The primary, and declared, end and purpose of such investigation is to determine whether or not petitioner and another are public utilities, within the meaning of that term as used in Section 203(a) of the Federal Power Act. The primary, and declared, issue on which hearings are to be had is precisely the same.

4. Petitioner is one of the parties primarily interested in and concerned with the aforesaid issue, and the proposed finding and determiaation, since such issue, finding and determination concern the status of petitioner and petitioner's rights, duties, powers and liabilities in connection with the Federal Power Act. Petitioner is advised and verily believes that an adjudication thereon may constitute an adjudication as to the general jurisdiction of the Commission over petitioner and may be applicable in other and different proceedings than the instant proceedings, by reason whereof its participation in this proceeding will be in the public interest.

5. Petitioner is advised, and verily believes, that it has a legal right to appear herein and be heard on the issue of whether or not it is a public utility subject to the Commission's jurisdiction.

6. Under the applicable definitions and limitations prescribed by the Federal Power Act, the instant proceeding involves an examination into the facts concerning the physical properties owned and operated by petitioner, and into the nature of the business done by petitioner. On these subjects, petitioner desires to establish the correct facts through its own witnesses who are best acquainted therewith, and through the advice of its counsel representing petitioner at the hearing.

7. The facilities owned and operated by petitioner are located entirely within the State of New Jersey, and do not extend to or touch the borderline of said State. Said facilities consist of generating, transmitting and distributing facilities for the supply of electrical energy to consumers within petitioner's franchise areas, which said areas are located entirely within said State. Said facilities were constructed, and are now owned and operated for the purpose of supplying consumers in such areas, and not for the purpose of supplying consumers in any other State or place. The business done by petitioner over such facilities is and has been the supply of electrical energy to consumers located in the State of New Jersey, and petitioner is not engaged in the business of supplying electrical energy to consumers or for consumption in any other State or place.

8. The facilities owned and operated by petitioner interconnect with facilities owned and operated by other public utility companies at or near South Amboy, N. J., Wrightstown, N. J. and Boonton, N. J. At the first two points the transactions are with Public Service Electric & Gas Company, a New Jersey corporation, with which petitioner is in no way affiliated, the transactions at the first point being the interchange of electric energy and at the second point the purchase by petitioner of electric energy. At the third said point an interconnection is made with New Jersey Power & Light Company, respondent herein, for emergency service. On information and belief, none of such electrical energy is transmitted in interstate commerce, nor is the same sold at wholesale in interstate commerce. The facilities owned and operated by petitioner which so interconnect with the facilities of others are exclusively facilities for transmission of electrical energy in intrastate commerce. The transactions had with such other companies are subject to regulation by the State of New

Jersey, and are in fact regulated by the Board of Public Utility Commissioners of said State.

Wherefore, petitioner respectfully prays:

(a) That leave be granted to petitioner to become an intervener in this cause, and a party thereto.

(b) That after hearings hereon, the Commission make and enter a finding, determination and order that petitioner is not a public utility subject to the jurisdiction of the Federal Power Commission, under the terms of the Federal Power Act or otherwise.

JERSEY CENTRAL POWER & LIGHT COMPANY
By: T. R. CRUMLEY,
President

State of New Jersey,
County of *ss:*

T. R. Crumley, being duly sworn, deposes and says that he is the President of Jersey Central Power and Light Company, the petitioner herein, that he has read the foregoing petition and knows the contents thereof, and that the same are true to the best of his knowledge and belief.

T. R. CRUMLEY

Subscribed and sworn to before me this 14th day of September, 1938.

J. Burney,
Notary Public of New Jersey

My commission expires Aug. 1st, 1942.
(Seal)

ORDER OF EXAMINER

Upon motion of counsel for the Jersey Central Power & Light Company made immediately after appearances of counsel were entered at the hearing, leave was granted said Jersey Central Power & Light Company to file its Petition to Intervene and the same was filed on the 27th day of September 1938, and the Jersey Central Power & Light Company, upon its motion, was made a party to this proceeding, as appears in the official transcript of the record, of the proceedings at the hearing.

This Sept. 27, 1938.

CARROLL B. SPENCER
Attorney Examiner.

VIII.

TRANSCRIPT OF HEARINGS

Washington, D. C.,
Tuesday, September 27, 1938.

The above-entitled matter came on for hearing, pursuant to notice, in Room 1201, Hurley-Wright Building, 1800 Pennsylvaania Avenue, N. W., Washington, D. C., at 10:00 o'clock a. m.

Before:
Carroll B. Spencer, Trial Examiner.

Appearances:

Lambert McAllister, Esq., on behalf of the Federal Power Commission.

C. E. Paxson and Robert N. Weston, of Travis, Brownback and Paxon, 61 Broadway, New York City, on behalf of New Jersey Power & Light Company.

Joseph F. Autenrieth, of Autenrieth & Wortendyke, 1180 Raymond Boulevard, Newark, New Jersey, on behalf of Jersey Central Power & Light Company.

PROCEEDINGS

EXAMINER SPENCER: The hearing will be convened.

On June 7, 1938, the Commission issued an order under which the New Jersey Power & Light Company was directed to submit in writing detailed information concerning

its reported acquisition of 341,350 shares of common stock of Jersey Central Power & Light Company, in apparent violation of Section 203(a) of the Federal Power Act, and on or before June 24, 1938, to show cause, if any, why this Commission should not proceed to enforce the requirements of said Act.

On July 5, 1938, the Commission adopted an order directing that an investigation be instituted to determine all facts, conditions, practices, or other matters relating to the transaction whereby the New Jersey Power & Light Company acquired 341,350 shares of the common stock of Jersey Central Power & Light Company; and by said order directed that a public hearing be held on August 29, 1938, at 10:00 a. m. in the hearing room of the Commission, to ascertain whether or not the acquisition of the said stock involved "the purchase, acquisition, or taking by a public utility of any security of any other public utility within the meaning of Section 203(a) of the Federal Power Act," and also to ascertain all facts pertaining to any other issue raised by the order to show cause and the return thereto. The return to the order to show cause was filed on the 24th day of June, 1938.

On July 29, 1938, the Commission adopted an order postponing to September 13, 1938, the hearing directed to be held under the order of July 5, 1938, and on September 8, 1938, by order, the said hearing was further postponed to September 27, 1938.

The aforementioned several orders are as follows:

June 7, 1938.

Docket No. IT-5518

In the Matter of:
New Jersey Power & Light Company and Jersey Central Power & Light Company

ORDER TO SHOW CAUSE

It appearing to the Commission that:

(a) New Jersey Power & Light Company and Jersey Central Power & Light Company are public utilities subject to the jurisdiction of the Federal Power Commission;

(b) The New Jersey Power & Light Company, on March 11, 1938, allegedly acquired 341,350 shares of the common stock of Jersey Central Power & Light Company without first having secured the approval of the Commission as required by Section 203 (a) of the Federal Power Act.

(c) The Federal Power Act, in Section 203(a), provides that no public utility shall purchase, acquire, or take any security of any other public utility without first having secured an order of the Federal Power Commission authorizing it to do so;

The Commission orders that:

The New Jersey Power and Light Company submit in writing under oath on or before June 24, 1938, detailed information concerning its reported acquisition of said 341,350 shares of common stock of Jersey Central Power & Light Company in apparent viola-

tion of Section 203(a) of the Federal Power Act and, on or before said above date, show cause, if any, why this Commission should not proceed to enforce the requirements of said Act.

By the Commission.

July 5, 1938.

Docket No. IT-5518

In the Matter of:
New Jersey Power & Light Company and Jersey Central Power & Light Company

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ORDER INSTITUTING INVESTIGATION AND SETTING DATE OF HEARING

It appearing to the Commission that:

(1) By order to show cause in the above matter adopted June 7, 1938, New Jersey Power & Light Company (hereinafter referred to as respondent) was required to submit on or before June 24, 1938, detailed information concerning its reported acquisition of 341,350 shares of common stock of Jersey Central Power & Light Company in apparent violation of Section 203(a) of the Federal Power Act, and show cause why the Commission should not proceed to enforce the requirements of said Act;

(2) On June 24, 1938, the respondent filed a return to said order to show cause wherein it avers that:

(a) On March 14, 1938, respondent, after obtaining the approval of the Board of Public Utility Com

missioners of the State of New Jersey, by decision dated March 11, 1938, acquired 341,350 shares of the common stock of Jersey Central Power & Light Company, and that all of the conditions contained in said decision had been complied with;

(b) Jersey Central Power & Light Company is not a public utility as defined by the Federal Power Act;

(c) No approval of the Federal Power Commission was required by law to the acquisition by respondent of said shares of stock of Jersey Central Power & Light Company, and that respondent has not violated Section 203(a) or any other provision of the Act in connection with the acquisition of such stock;

The Commission, having considered the matters set forth in the order to show cause and the return thereto, upon its own motion, orders that:

(1) An investigation be and is hereby instituted to determine all facts, conditions, practices or matters relating to the transaction whereby the respondent on March 14, 1938, acquired 341,350 shares of common stock of Jersey Central Power & Light Company;

(2) A public hearing on said matter be held on August 29, 1938, at 10 a. m. in the hearing room of the Commission, Hurley-Wright Building, 1800 Pennsylvania Avenue, N. W., Washington, D. C., to ascertain:

(a) Whether or not the transaction described in (1) hereinabove involved the purchase, acquisition, or taking by a public utility of any security of any other public utility within the meaning of Section 203 (a) of the Federal Power Act;

(b) All facts pertaining to any other issue raised

by the order to show cause and the return thereto.

By the Commission.

July 29, 1938

Docket No. IT-5518

In the matter of:
New Jersey Power & Light Company and Jersey Central Power & Light Company

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ORDER POSTPONING HEARING

It appearing to the Commission that:

Counsel for Jersey Central Power & Light Company has requested a two weeks' postponement of the public hearing in this cause now assigned to be held on August 29, 1938, in accordance with the order of the Commission adopted on July 5, 1938;

The Commission orders that:

For good cause shown, the public hearing in the above cause now set for August 29, 1938, be and the same is hereby postponed to September 13, 1938, at the same time and place. By the Commission.

September 8, 1938

Docket IT-5518

In the Matter of:
New Jersey Power & Light Company and Jersey Central Power & Light Company.

ORDER POSTPONING HEARING

It appearing to the Commission that:

By order of the Commission, adopted July 29, 1938, a public hearing in the above cause was set for September 13, 1938;

The Commission on its own motion orders that:

The public hearing in the above cause now set for September 13, 1938, be and the same is hereby postponed to September 27, 1938, at the same time and place. By the Commission.

On September 8, 1938, the Commission adopted an order designating Carroll B. Spencer to preside at the hearing, which order is as follows:

Docket IT-5518

In the Matter of:
New Jersey Power & Light Company and Jersey Central Power & Light Company

DESIGNATION OF EXAMINER

Hearing Date: Sept. 27, 1938

The Commission, by order adopted July 5, 1938, having directed that a hearing be held in the above matter, CARROLL B. SPENCER is hereby designated as examiner to preside at said hearing, pursuant to the order of the Commission adopted January 28, 1936.

(s) C. L. S.
Acting Chairman.

Dated: Sept. 8, 1938.

Will counsel for the Commission please enter his appearance?

MR. McALLISTER: Lambert McAllister, appearing for the Federal Power Commission.

EXAMINER SPENCER: Will counsel for respondent enter his appearance?

MR. PAXSON: C. E. Paxson and Robert N. Westoy. Mr. Joseph F. Autenrieth appears for the Jersey Central Power & Light Company, and particularly with a petition to intervene.

MR. AUTENRIETH: I might say to your Honor there is some ambiguity. If you rule we are parties I will not present the petition. If you rule we are not parties I will present the petition at the proper time.

EXAMINER SPENCER: You haven't filed a petition?

MR. AUTENRIETH: We haven't filed the petition. If you declare we are a party there is no necessity to file a petition to intervene. The only doubt about it, I am —

EXAMINER SPENCER (interposing): Has counsel for the Commission investigated the matter as to notice, service and so forth, so far as this party is concerned?

MR. McALLISTER: So far as notice and service is concerned I have not investigated, but counsel for the Jersey Central Power & Light Company can tell us whether they have been served with notice.

MR. AUTENRIETH: Yes, we have been served. It is merely a matter whether the order is clear. We desire to be parties and that is the purpose of this petition.

EXAMINER SPENCER: Is there any objection on the part of counsel for the Commission?

MR. McALLISTER: I have no objection to the petition being filed so long as there is any doubt in the mind of

counsel for the Jersey Central Power & Light Company.

EXAMINER SPENCER: Will you read the petition, please, sir?

MR. AUTENRIETH: This may be off the record.

(Discussion off the record.)

MR. PAXSON: If your Honor please, could we get a clarifying statement from counsel for the Commission as to their view whether Jersey Central Power & Light Company are parties? He says he has no objection to having the petition filed. Are we going to wait for action on the petition? We ought to have this thing clarified before we proceed further.

EXAMINER SPENCER: That will be determined before we proceed. I won't question whether or not they were served. Five or six other people, who were not parties, were served, like the Public Service Commission of New Jersey.

MR. AUTENRIETH: I just suggest counsel may stipulate we are a party and then we can abandon this application instead of taking the time to wade through it.

EXAMINER SPENCER: I take it your petition raises no new issue?

MR. AUTENRIETH: Just the question of interstate commerce, and we want to be heard on that question.

MR. McALLISTER: Under the rules of the Commission, Mr. Examiner, petitions for the right to intervene should have been filed prior to the hearing. I don't have a copy of those rules with me, do you?

EXAMINER SPENCER: Yes. They may be filed prior to or at the time of the hearing.

MR. McALLISTER: At the time of the hearing?

MR. AUTENRIETH: Yes.

EXAMINER SPENCER: I think they are in apt time.

MR. McALLISTER: That is right, they seem to be, but what I wanted to say was I have no objection to the filing of this petition. The parties it seems inject a point which may be common with that which is under consideration and will be determined in the original proceedings instituted by the Commission, but if the petition is to be filed, if that is the desire of the Jersey Central Power & Light Company, I think the case should take its regular course and the petition should be filed, if they want to secure the right to intervene and be heard as a party to these proceedings. I am not advising them one way or the other.

EXAMINER SPENCER: You have no objection?

MR. McALLISTER: No, but for me to say what the Commission intended in the order which was issued or to stipulate on the record, why, I cannot bind the Commission.

EXAMINER SPENCER: No.

MR. McALLISTER: And if they were to say afterwards, if Jersey Central Power & Light Company was to say afterwards they were misled by the stipulation, I would be placed in an anomalous position, so I think, for the protection of all parties concerned, that counsel should pursue that course which will assure him of the protection of the rights he asserts, that is, a right to be heard as a party in this proceeding.

EXAMINER SPENCER: I will entertain the motion.

MR. AUTENRIETH: May I present the petition and make a motion to that effect?

EXAMINER SPENCER: Let the record show that upon motion of Mr. Autenreith, counsel for the Jersey Central

Power & Light Company, the Jersey Central Power & Light Company was permitted to file this petition of intervention and to become a party to this proceeding.

Does counsel for New Jersey Power & Light Company wish to make an opening statement?

MR. MCTENRIETH: May I interrupt, do I understand my petition has been acted upon and we are now a party?

EXAMINER SPENCER: Yes.

MR. PAXSON: If the Examiner please, I do not at this time have any opening statement to make. I must say, representing the New Jersey Power & Light Company, that I don't know exactly why I am here. I have read these orders that the Commission has issued, and they have called a public hearing to determine whether or not New Jersey Power & Light Company has violated Section 203 (a) of the Federal Power Act in acquiring 341,350 shares of the common capital stock of Jersey Central Power & Light Company. As I remember an order to show cause was issued and our sworn answer was filed denying we had violated in any way either Section 203 (a) or any other section of the Act, and I take it, at this time the burden of the proof is on the Federal Power Commission, if it cares to proceed. So I suggest that any statements be made first by the Federal Power Commission and I may have some rejoinder thereto.

EXAMINER SPENCER: Does Counsel for the Commission have anything to say?

MR. McALEISTER: I have nothing to say at this time, Mr. Examiner. I call upon Mr. Grimsley.

EXAMINER SPENCER: Before we proceed with the introduction of evidence, will counsel for the New Jersey Power & Light Company and the Jersey Central Power & Light Company admit that 341,350 shares of the common

stock of Jersey Central Power & Light Company has been acquired by New Jersey Power & Light Company?

MR. PAXSON: If your Honor please, that has been admitted in the answer and sworn to and we are perfectly willing to admit it.

EXAMINER SPENCER: The Commission could prove it that way. I was thinking though it could be stipulated.

MR. PAXSON: Representing the New Jersey Power & Light Company we so stipulate that stock has been acquired by New Jersey Power & Light Company on March 14th.

MR. AUTENRIETH: The Jersey Central Power & Light Company stipulates that.

EXAMINER SPENCER: Proceed.

Whereupon

A. H. GRIMSLEY,

a witness produced by and on behalf of the Federal Power Commission, having been first duly sworn by the Examiner, was examined and testified as follows:

Direct Examination

BY MR. McALLISTER:

Q. Mr. Grimsley, will you state your full name. And relate your education and experience?

A. A. H. Grimsley. My education consisted of complete high school work, and in addition took another year as post graduate work, consisting largely of normal school work. Then, some special work equal to about two years of college work, and then I completed a one-year course of accountancy.

From 1894 to 1898 I was engaged in Civil Engineering Department of Railroad Construction Work with the West Virginia, Pittsburgh Railway Company, during which time

I carried on my technical studies and was promoted successively from chainman to rodman, then to levelman and then to transitman, and finally surveyor in charge of party.

In 1898 to 1901 I studied mechanical engineering while actively working upon problems of construction work of mills and car plants.

In 1901 to 1905 I was employed in the operating department of the Detroit, Toledo and Ironton Railway Company, doing some construction work, but most of my work during this period was spent in the operating department, in which department I was promoted to the office of superintendent of terminals.

In 1905 to 1907 I worked as mechanical engineer in the design and construction of a pig iron blast furnace. This work also included the development of a coal mine, rock quarry and iron ore operation.

From 1907 to 1915 I was superintendent and later manager of the Kanawha Water and Light Company, Charleston, West Virginia, in charge of street railway, artificial and natural gas system, and superintendent of water works and electrical department, during which time I constructed distribution systems in the departments of electricity, gas and water. During this period I took up the study of electrical engineering and completed a well-balanced course of study, and at the same time, by reason of my position, put this study into practical use.

From 1915 to 1925 I was connected with the Virginia Western Power Company, beginning as chief engineer and assistant to the president of that company.

I later became vice president and general manager. During the time I was connected with this company I designed and constructed many miles of high tension transmission lines, substations, hydro-electric plants and steam-electric plants.

The company was a rapidly growing utility operating in the states of Virginia and West Virginia. Part of my work consisted of the acquisition and consolidation of other utilities in the neighborhood.

In 1925 I sold my interest in that company, together with some options I had on other utility properties in the state of Virginia. I continued with the new owners as president and general manager, and merged these utilities into the Virginia Public Service Company and set up a complete operating organization.

In October, 1926, I then went to Aurora, Illinois, as vice president of General Engineering Management Company of New York, supervising the operation of the Western United Gas and Electric Company, until June, 1927, at which time I completed negotiations for the sale of this property to Middle Western Utilities.

During the time I was with the General Engineering Management Company of New York, I was also retained in an advisory capacity in reference to the purchase of utility properties.

MR. PAXSON (interposing): Speak a little louder, Mr. Grimsley, I can't hear very well.

THE WITNESS: The total consideration for the properties acquired was approximately $100,000,000. From 1927 until 1934 I was engaged in the handling of several personal matters and devoted my attention to the development, refinancing and re-organization of several industrial projects in the region of my home in Virginia.

In June, 1934, I was appointed senior engineer on the staff making the national power survey. This staff was a branch of the Federal Power Commission and later it was merged into the regular Commission organization, at which time I was classified as principal engineer.

BY MR. McALLISTER:

Q. Mr. Grimsley, have you had prepared under your direction a map showing the general location of the Jersey Central Power & Light Company and other utilities in the state of New Jersey?

A. I have.

MR. PAXSON: Will the reporter read that question? The noise and trolley cars prevent me from hearing well.

(The reporter thereupon read the preceding question and answer as recorded.)

BY MR. McALLISTER:

Q. I hand you a map and ask you if that is the map you prepared?

A. Prepared under my direction; yes, sir.

MR. McALLISTER: Mr. Examiner, I offer this map in evidence as Commission counsel's Exhibit No. 1, and ask that it be received in evidence.

EXAMINER SPENCER: Is there any objection?

MR. PAXSON: If the Commission please, we have never seen this map before. We have no objection to the testimony this is the map he prepared. I don't know what Mr. Grimsley's qualifications are for preparing a map. I don't know what is endeavored to be proved thereby. I presume it is correct. I don't know where it came from. It may be right and may not.

EXAMINER SPENCER: It may be received and marked Exhibit 1 with the reservation that counsel for the respondent may show any inaccuracies.

MR. PAXSON: That is perfectly satisfactory.

(The map referred to was marked Commission's Exhibit No. 1 and received in evidence.)

BY MR. McALLISTER:

Q. Mr. Grimsley, will you explain for the record the source of information which is recorded on the map which has been identified as Exhibit No. 1?

A. It is taken from the maps furnished by the various utilities, together with their annual reports to the Federal Power Commission.

Q. You said various utilities. Will you state specifically which utilities they were?

A. Jersey Central Power & Light Company, New Jersey Power & Light Company, Staten Island Edison Corporation, Philadelphia Electric Company, and subsidiaries, Public Service Electric and Gas Company and some of the main transmission lines of Pennsylvania Power & Light Company.

Q. Mr. Grimsley, have you made a study of the operating conditions and circumstances under which the Jersey Central Power & Light Company generates electric energy and serves the area indicated on Exhibit No. 1?

A. I have.

Q. Will you state for the record the studies that you have made and what is shown to be the conditions of operation on that System?

A. The Jersey Central Power & Light Company operates an interconnected system of electric facilities in northern and eastern New Jersey. It also operates an extensive gas system, but no further efforts will be made to this utility—

MR. PAXSON: (Interposing) Pardon me, are you testifying or reading, Mr. Grimsley?

I think, Mr. Grimsley, if you are going to qualify as an expert you should testify.

MR. McALLISTER: It is the result of a study, Mr. Examiner. It is entirely in conformity with the usual practice in stating the matters developed in the course of study before administrative hearings. The objection certainly can not be based upon any substantial ground, and it is to my mind wholly unusual and indicates at the outset of this hearing it is more obstructionist than a valid objection to the testimony that is being offered by the witness.

EXAMINER SPENCER: Read the question.

(The reporter thereupon read the pending question and the answer thereto as recorded.)

MR. PAXSON: If the Commission please, I don't object to any questions, but he is now starting to read from an apparent document.

EXAMINER SPENCER: Something about the history?

MR. PAXSON: May I make a few more remarks?

EXAMINER SPENCER: Yes.

MR. PAXSON: Counsel for the Commission states that my objection seems to him to be purely obstructionist and it is quite unusual in these proceedings. In answer thereto, I may say I think this proceeding is quite unusual. The Examiner asked me if I had any statement to make and I stated I did not know why I was here. These proceedings are initiated really to show cause why the New Jersey Power & Light Company should not be compelled to comply with the law. I don't know whether this proceeding is the institution of something of a criminal character, whether there is any attempt to impose any pain and penalty on my client for infraction of law, or whether

this is a pure investigation to ascertain some fact which the New Jersey Power & Light Company does not control in any way, and if the testimony to be offered in a proceeding based upon technical engineering studies, Mr. Grimsley has told us a great deal about his experience, and I know him and I have the highest respect for him, but I asked counsel to make some opening statement. I would like to know what the purpose is. Is it to initiate something against our company, and if so, what is it?

I think I am entitled to ask that the ordinary rules of practice imposed in a court of law should be followed here.

I don't know what it is. Is he going to read something which is hearsay? He made a map. I don't care ordinarily, in the ordinary simple hearing on an application, but if this is an adverse proceeding in character, I would like to know it. If it is just an investigation with no pain and penalty attached, I would like to know that. I certainly am going to insist that the ordinary rules of evidence be complied with.

EXAMINER SPENCER: As a matter of law, it is the Examiner's opinion the Commission has no authority to impose pain and penalties, and on your objection to the question I shall rule as to whether the witness can read or whether he will have to state from memory such facts as he can now state.

Mr. Reporter, please read the question.

(The reporter thereupon read the question referred to as recorded.)

EXAMINER SPENCER: Mr. Grimsley, are the papers from which you are reading, do they refer to the studies which you have made? Is that what you were reciting?

THE WITNESS: Absolutely.

EXAMINER SPENCER: Then you are not reading from the paper a statement of any fact in connection with the exhibit?

THE WITNESS: Well, the study will refer at times to these various systems and facilities shown on the map. It is necessary to study these properties in order to determine the various movements of energy.

EXAMINER SPENCER: The Examiner rules the witness may refer to the paper for the purpose of refreshing his memory in response to the question. If counsel for the Commission wishes a statement to be introduced in the record, I think the proper way to do would be to introduce it in the form of an exhibit.

MR. McALLISTER: In other words, Mr. Examiner, the witness is not to be permitted to read the various parts of his prepared studies in response to questions?

EXAMINER SPENCER: He can read from the paper such parts as is necessary for him to refresh his memory in connection with his testimony based on the studies he has made.

BY MR. McALLISTER:

Q. Will you proceed?

MR. PAXSON: If Mr. Grimsley has made a study, I presumed he was going to qualify as an expert. If he is going to read something somebody else may have prepared, I object. I want to find out what Mr. Grimsley did.

MR. McALLISTER: You will have opportunity to inquire of Mr. Grimsley what he knows about it.

BY MR. McALLISTER:

Q. Proceed with your description showing the results of your studies, Mr. Grimsley.

A. In northern New Jersey the territory served includes part of Passaic, Morris and Somerset Counties, and is adjacent to and between the properties of the New Jersey Power & Light Company and the Public Service Electric and Gas Company.

Q. Mr. Grimsley, at that point, will you indicate on the map, which is Exhibit No. 1, just the matters to which you have referred?

A. That section of the—that partial area, the Jersey Central Power & Light Company serves as previously outlined, is shown in sort of an orange color and designated on the side under the legend for the various colors used in setting forth the territories served by the various utilities in order to give a clear picture of the operating territories.

Q. The part to which you refer as being located in Passaic, Morris and Somerset Counties is that part that is immediately adjacent to the part shown in green representing the areas served by New Jersey Power & Light Company, is that true?

A. That is correct, and that of the pale yellow on the east served by the Public Service Electric and Gas Company.

BY EXAMINER SPENCER:

Q. Is that indicated by the letters B and D?

A. It is indicated by the letter D.

BY MR. McALLISTER:

Q. The letter D indicates what company?

A. New Jersey Power & Light Company.

Q. Now will you describe the location of the other part of the system of the Jersey Central Power & Light Company?

A. In eastern New Jersey the field of operation of

Jersey Central Power & Light Company extends across a wide area along the Atlantic Seacoast from South Amboy, south through Middlesex, Monmouth, Ocean, and the northern tip of Burlington Counties.

In this territory, Jersey Central served in 1937 a total of 101,144 residential, industrial and commercial customers.

Q. Mr. Grimsley, what generating plants are owned by Jersey Central Power and Light Company?

A. Jersey Central Power and Light Company owns six generating plants with a total capacity of 137,650 kilowatts.

With the exception of Pompton Lakes hydro plant, all plants are operated by steam. The Raritan River and Camden plants of 60 and 50 thousand kilowatts capacity respectively, are the main sources of energy for this company.

In 1937 the total energy produced by this company amounted to 365,826,350 kilowatt hours.

The maximum demand on steam generating plants in 1937 was 70,200 kilowatts, their capability at the time of peak was 121,650 kilowatts and installed capacity connected to load was 105,000 kilowatts. It follows, therefore, that the capacity of the company's plants is well in excess of its maximum annual power requirements.

Q. What is the source of the information, Mr. Grimsley, which you have just referred to?

A. This information is taken from the reports made by the company to the Federal Power Commission, on form F. P. C. No. 1 and Power System Statement Form 61.

Q. That information is supplied by the company under oath, is it not, Mr. Grimsley?

A. They are attested to.

Q. From those reports to which you have just referred, that information supplied by the company under

oath, have you prepared an exhibit setting forth the information as to the generating capacity of the plants of this company, its energy output and plant facilities and other pertinent information showing the operations of this system as they are reported to the Federal Power Commission?

A. I have.

Q. I show you a statement, Mr. Grimsley, which is headed Jersey Central Power & Light Company, physical and operating characteristics, and ask you if that is the exhibit which you prepared and to which you have just referred?

A. That is correct.

MR. McALLISTER: Mr. Examiner, I offer in evidence at this time the document identified by the witness as Commission counsel's Exhibit No. 2.

MR. PAXSON: Let's see it.

BY MR. McALLISTER:

Q. Mr. Grimsley, by reference

MR. PAXSON: (interposing) Just a moment May we have a second to look this over?

EXAMINER SPENCER: You may.

MR. PAXSON: It is quite a complicated study for a poor lawyer like me to accept at once. I am not an engineer.

If the Commission please, I have no objection to the inclusion of this, subject to my right in later checking it, and to introduce evidence to dispute it. I also want to enter an objection to one of the labels on this proposed exhibit, namely, the label "Energy sold for resale." It looks to me as though that carries with it some legal conclusion gleaned from the use of cer-

tain language in the Federal Power Act. I don't know what he means by the statements, but if it is meant thereby to imply that means resale in interstate commerce, I object to it as a legal conclusion. This language is apparently copied from the Federal Power Act.

EXAMINER SPENCER: I understand this is compiled from the reports of the company made to this Commission.

THE WITNESS: That is correct, purely statistical. Sold for resale means any amount sold to other utilities.

MR. PAXSON: You are not trying to stigmatize either interstate or intrastate commerce—

MR. McALLISTER: (interposing) I will ask the reporter to read the question.

Off the record.

(Discussion off the record.)

BY EXAMINER SPENCER:

Q. Mr. Grimsley, does this "Energy sold for resale" appear on the report filed by the company?

A. All of it.

EXAMINER SPENCER: Let the record show this is admitted as Commission's Exhibit No. 2, subject of course to the right of the respondent to show any inaccuracies. You may proceed.

(The document referred to was marked Commission's Exhibit No. 2 and received in evidence.)

BY MR. McALLISTER:

Q. Mr. Grimsley, will you outline for the record, will you state for the record the energy transactions depicted by the exhibit which you have prepared from sworn re

ports of the Jersey Central Power Company, which has just been received as Exhibit No. 2?

A. The total output of this company's plants in 1937 was about 366,000,000 kilowatt hours. Of this amount, Jersey Central sold to ultimate customers

EXAMINER SPENCER: (Interposing) Where does that figure appear?

BY MR. McALLISTER:

Q. Mr. Grimsley, will you state on the record by columns and so forth, so that it can be identified in the record?

A. I used the round figure 366,000,000. The exact figure under energy output by plants, shown in Group B of the Exhibit, the actual output for 1937 was 365,826,650 kilowatt hours.

Q. Will you proceed, Mr. Grimsley?

A. Of this amount, Jersey Central sold to ultimate consumers in round figures 248,000,000 kilowatt hours, to other utilities 61,000,000 kilowatt hours, and the remainder was used by the company or lost in transmission or distribution.

During the same year Jersey Central purchased from other utilities 1,634,450 kilowatt hours.

Jersey Central sold to Public Service Electric and Gas Company 55,421,000 kilowatt hours in 1937; 70,694,825 kilowatt hours in 1936; 77,333,196 kilowatt hours in 1935; and 56,345,000 kilowatt hours in 1934.

The deliveries to Public Service were all made to the Mechanic Street substation, located in Perth Amboy, and represents an important market for Jersey Central, which over a period of years remained at a substantially high level.

Other utility power sales made by Jersey Central were to New Jersey Power & Light and several small municipal systems.

MR. PAXSON: Will you read that last answer, Mr. Reporter?

(The reporter thereupon read the preceding answer as recorded).

MR. PAXSON: If the Commission please, on further study, I offer just in the interest of expedition, one objection to this report. I note that figures are compiled for 1934. I don't know that it is very important, but I just want to know how far back we go. This Federal Power Commission had no jurisdiction of any electric utility prior to August 26, 1935, and it would seem to me in order to save the work of all involved we ought not to be obliged to go back any further. It seems to me there ought to be some limit.

EXAMINER SPENCER: Your theory is what?

MR. PAXSON: My theory is that if the company was subject to the law at any time, it was not subject to it in 1934. I wonder if this is going back to the beginning of mankind?

MR. McALLISTER: When you go back to the year 1934 you can hardly say you are going back to the beginning of mankind. Nevertheless, I wish to state this, a constant condition of facts over a long period of years with little or no change is a matter of fact in which this Commission is vitally interested, even though it goes back before August 26, 1935.

MR. PAXSON: I do press my objection. I object to any figures prior to August 26, 1935, because at that time the Federal Power Commission had no jurisdiction of public utilities.

MR. McALLISTER: It is not predicated

MR. PAXSON: I do not know to what use these figures may be devoted.

EXAMINER SPENCER: The Examiner can understand that figures for 1934 may have some bearing upon the receipts in subsequent years, and with the statement that judicial notice will be taken of the fact that the Commission did not have jurisdiction in 1934, the exhibit will be admitted as prepared. You may proceed.

BY MR. McALLISTER:

Q. Mr. Grimsley, in the testimony which you have just been offering, you made reference to an interconnection between Jersey Central Power & Light Company and other utilities. Will you state what those connections are more specifically, and where they are made?

MR. PAXSON: Now, if the Commission please, I object to the form of the question. I do not wish to be captious. He says other public utilities and the term public utility has a legal significance. If you will say other public service or electrical utilities, then I have no objection.

EXAMINER SPENCER: I have not taken notice of the fact that this is a public utility. It is a question of fact as to whether it is a public utility within the meaning of the Federal Power Act and referring to it as a public utility will not within itself denominate it a public utility within the meaning of the Federal Power Act.

MR. PAXSON: I may fall into this same error myself.

BY MR. McALLISTER:

Q. Will you answer the question?

A. The electrical facilities of Jersey Central are interconnected with the facilities of Public Service Electric and Gas Company on the south bank of the Raritan River, making it possible for energy generated at South Amboy

to be delivered at 26,400 volts to the Mechanic Street sub station of the Public Service Electric and Gas Company in Perth Amboy, on the north side of the Raritan River.

The second important interconnection between these two systems is at Wrightstown and New Lisbon, New Jersey.

Over this interconnection the Jersey Central received from Public Service 800,000 to 1,300,000 kilowatt hours per year during the last four years. The energy delivered by Jersey Central to Mechanic Street substation was utilized by Public Service Electric and Gas Company in carrying its load at this substation, which includes deliveries to Staten Island Edison Corporation—

MR. PAXSON: Just a moment. I object to that type of testimony that contains lots of conclusions. He is trying to say how Public Service uses this power. That is a conclusion. That is a conclusion of fact and a conclusion of law. If he says they take so much power, why all right. As to how they use it, we have got to have further evidence. That begs the whole question.

EXAMINER SPENCER: Will counsel for the respondent—

MR. PAXSON: (Interposing) That is the trouble with reading a paper that may have some preconceived theory or idea.

EXAMINER SPENCER: That gives an opportunity, counsel, a wonderful opportunity on cross-examination.

MR. PAXSON: If you will give me a copy so I can remember all these things, why all right. I don't have a photographic memory.

EXAMINER SPENCER: What does the Commission counsel wish to say?

MR. McALLISTER: Mr. Examiner, the statement made by the witness is entirely consistent and appropriate and Mr. Paxson, if he will ask the reporter to read back the answer as far as it has gone, I am sure he will see the significance of it.

EXAMINER SPENCER: Read the answer.

(The reporter thereupon read the answer referred to as recorded.)

EXAMINER SPENCER: It doesn't seem he was—

MR. PAXSON: (interposing) Maybe I was in error. The trouble is in reading from a written memorandum—if you will go a little more slowly I will appreciate it and I suppose the recorder will too.

THE WITNESS: I will be delighted.

—In the state of New York and at times parts or all of the loads in their substations for the central division.

BY MR. McALLISTER:

Q. (interposing) Right there, you refer to the central division of what utility company?

A. That is Public Service Electric and Gas Company.

Q. All right.

A. Over the same interconnection, Mechanic Street Substation, Jersey Central received from Public Service 315,600 kilowatt hours in 1937.

Energy transactions at these transfer points between the two companies are carried out in accordance with contracts dated March 24, 1931 and July 19, 1935, and filed with the Federal Power Commission, and identified in the Commission's records as Public Service Electric and Gas Company rate schedules F. P. C. No. 7 and F. P. C. No. 8.

MR. McALLISTER: Mr. Examiner, those agreements filed as rate schedules with the Federal Power Commission are official documents and I ask that at this time these two rate schedules, Public Service Electric and Gas rate schedule F. P. C. No. 7 and Public Service Electric and Gas Company rate schedule F. P. C. No. 8 be made a part of the record in this case by reference.

EXAMINER SPENCER: Is there any objection?

MR. PAXSON: As I understand it, these are just the two contracts. I don't know anything about the F. P. C. numbers, but I have no objection to having these contracts included by reference.

EXAMINER SPENCER: Let the record show these records are included by reference as part of the record in this case.

BY MR. McALLISTER:

Q. Have you finished, Mr. Grimsley, with your statement as to the interconnections of the Jersey Central Power & Light Company?

A. The third important interconnection of Jersey Central with other electric utilities is that between its Boonton substation and the West Wharton substation of New Jersey Power & Light Company. The foregoing interconnections tie in intimately the electric facilities of the Jersey Central Power & Light Company with those of two large—

MR. PAXSON: (interposing) I object to the use of the word intimately and important. Can't he stick to the bare facts? I am not trying to be an obstructionist. Can't he just tell us the physical facts?

EXAMINER SPENCER: I think, Mr. Grimsley, you can state the facts, whether they are important or unimportant.

MR. PAXSON: They may not be intimate or important.

MR. McALLISTER: Mr. Examiner, I think it is rather inconvenient to testify when you are deprived of the use of words which express the very thoughts and purpose of the testimony. Now it would be entirely appropriate on cross-examination by opposing counsel or by the Examiner, if he cares to do so, to determine from the witness what he intends to convey by the use of certain words, and I don't think it should be stricken out merely because it may appear to be unusual.

EXAMINER SPENCER: The only thought the Examiner has is that the witness can testify to the connection and the amount of electricity passing through, which would determine the importance. I appreciate your statement, that it is necessary to use words to convey meaning, and all that. In so far as you can, without concluding it is important, you may state just the facts that lead you to conclude it is important. That will prolong this hearing, and if counsel for the respondent insists that should be done, I should think as a matter of legal right he is entitled to have the facts stated.

BY MR. McALLISTER:

Q. Will you state for the record what you intended to convey by the use of the word intimately in your last response?

A. I am stating here the results of the complete study of all of these facilities. Through interchange of energy they are dependent upon one another for generating capacity as spare breakdown, or what not. The study which I made was in addition to the records here. I have used those records and I have been on the ground and looked

over these facilities, and to me it is an important interconnection, just as I have stated. I think I would be inaccurate if I were to omit that word. I repeat from facts in the matter what I have found and believe to be facts.

MR. PAXSON: The facts are the switch is always open and is only used for emergencies and when I say the switch is open I mean no electricity can flow over it and when closed it flows. If he wants to tell us the facts he might state that.

THE WITNESS: I am going to do that.

MR. PAXSON: Or discuss about how important it is. I say those adjectives are not necessary. Let him testify to the facts. One or two or three of these words might slip by him if he keeps on in the use of it. If it is introduced

EXAMINER SPENCER: (interposing) Mr. Grimsley, you can testify to the same facts without saying it is important as you can by saying it by using more words which will indicate the importance. As to whether it is important or not is a question of fact, but the Examiner's present opinion is that any connection would be important for the purposes of this inquiry, and in so far as you can, please describe them without saying they are important. If you have to talk an hour to tell why you think they are important, please go ahead and take the time.

BY MR. McALLISTER:

Q. Mr. Grimsley, with reference to your answers regarding these interconnections between the Jersey Central Power & Light Company and other utilities adjacent to it, and the necessity for these connections and the operations that are possible by reason of these interconnections which you say indicate its necessity and importance, will you describe what those are?

MR. PAXSON: I object to the use of the word possible. The Federal Power Commission has jurisdiction over facilities, as I understand it, when actually used for the transmission of electrical energy in interstate commerce, but I don't think we ought to indulge in the realm of speculation, and I don't think the Commission should be interested in—

EXAMINER SPENCER: (interposing) I think that is the only way you could determine it.

MR. PAXSON: Such things might be possible and never happen as a matter of fact.

EXAMINER SPENCER: That is true. You may show that. You may answer.

MR. PAXSON: I take an exception.

THE WITNESS: I don't know what the question is now. It prevents me from putting in here the very things Mr. Paxson has referred to.

MR. PAXSON: Mr. Grimsley, I am not trying to hall you up, to use the common metaphor, all I have got to do is stick in this record, and I say that is the difficulty of reading a paper. You go ahead and I will try not to make any objections I don't think necessary in the interest of my client. I can't tell what you have in mind and may have later.

EXAMINER SPENCER: Answer the question, Mr. Grimsley.

MR. McALLISTER: Read the question, Mr. Reporter.

(The reporter thereupon read the pending question as recorded.)

THE WITNESS: Well, these connections make possible the transfer of energy in large quantities

from one utility to the other. These interconnections enable also Jersey Central to operate in addition to any synchronism with the whole group of interconnected utilities supplying electrical service in the state of New Jersey, which, for various economic and engineering and operating reasons interchange power among themselves and with other utilities in adjoining states.

BY MR. McALLISTER:

Q. What arrangement, Mr. Grimsley, covers the interchange of electrical energy between the Jersey Central Power & Light Company and the New Jersey Power & Light Company?

A. The interchange power between Jersey Central and New Jersey Power & Light is carried on in accordance with the contract dated June 16, 1937, which superseded a contract between these two utilities dated March 27, 1935. These two contracts were filed with the Commission and have been identified as New Jersey Power & Light rate schedule F. P. C. Nos. 4 and 5.

BY MR. PAXSON:

Q. Mr. Grimsley haven't you got the date wrong in that contract in 1937? I think the date is February 6, 1937.

A. Well, let's have them. That is the way to settle that.

MR. PAXSON: Off the record.

(Discussion off the record.)

THE WITNESS: The difference here arises because that was filed on June 16th.

MR. PAXSON: All right.

THE WITNESS: Now then, may I correct the record so far as the contract date is concerned, June 16, 1937, which superseded the one dated—

EXAMINER SPENCER: (interposing) We will take a recess for five minutes while you clear up the date.

(Whereupon a five-minute recess was had, at the conclusion of which the following occurred:)

EXAMINER SPENCER: The hearing will be reconvened. You may proceed, Mr. McAlister.

BY MR. McALLISTER:

Q. Mr. Grimsley, will you make the necessary correction to show the proper date for that new contract which was pointed out to be in error as you said originally?

A. The contract in effect is dated February 6, 1937, instead of June 16th, which was the filing date.

Q. The filing date with the Commission?

A. With the Commission.

Q. What has been the effect in operations brought about by this change in contract, Mr. Grimsley?

A. A comparison of the two contracts shows a substantial change in the relations between the two utilities during the last two years. By the provisions of the contract between these two companies—

MR. PAXSON: (interposing) Just a moment, doesn't the contract speak for itself, Mr. McAllister?

MR. McALLISTER: Yes.

MR. PAXSON: Do you need his legal conclusions in respect thereto, Mr. Examiner?

MR. McALLISTER: The contracts speak for themselves. He is merely pointing out the high lights which are necessary for the subsequent statements. It shows the basis for the subsequent testimony and indicates wherein it finds support in the agreement between the two companies. It is entirely appropriate.

It is not an attempt to identify it or to interpret the contracts, but is merely making reference to the provisions of the contract and a statement regarding that in connection, that is a statement of the operation under the contracts as they exist today.—

EXAMINER SPENCER: (interposing) Have those contracts been introduced?

MR. McALLISTER: They will be introduced. I will do it right now, Mr. Examiner.

Mr. Examiner, these contracts to which reference has just been made by the witness are regularly filed rate schedules with the Federal Power Commission and identified in its records as New Jersey Power & Light Company rate schedule F. P. C. 4 and New Jersey Power & Light Company rate schedule F. P. C. 5.

I ask that these two rate schedules be made a part of the record by reference.

MR. PAXSON: No objection.

EXAMINER SPENCER: Let the record show that the rate schedules 4 and 5 are made a part of the record in this case by reference.

BY MR. McALLISTER:

Q. Will you proceed?

A. By the provisions of the contract between these two companies made effective March 27, 1933, Jersey Central secured emergency capacity from New Jersey Power & Light Company to the extent of the capacity of the interconnection at Boonton, New Jersey, approximately 12,000 KVA, less that portion of the capacity which may be used at the time of the emergency for the supply of firm power.

For this emergency service Jersey Central agreed to pay a fixed charge of $1,000 per month, plus the actual cost of delivering energy, plus 25 per cent.

For emergency service delivered by Jersey Central to New Jersey Power & Light Company, the latter was to pay only the cost of delivering energy, plus 25 per cent.

Under the terms of this contract, Jersey Central paid in 1936 a total of $12,385 for 74,600 kilowatt hours of energy.

By the terms of the new contract Jersey Central agreed to sell and New Jersey Power & Light Company agreed to purchase firm power in the minimum amount of 3,000 kilowatts and 666,666 kilowatt hours per month, for which Jersey Central shall bill New Jersey Power & Light Company a demand charge of $2,760 per month, and an energy charge at economy flow prices as described in Section C of Article 4 of this contract.

It is also provided in this contract that the emergency services which Jersey Central are obtaining from New Jersey Power shall continue, but the minimum fixed charge of $1,000 per month to be paid by Jersey Central is eliminated.

While this contract became effective on February 6, 1937, the application of the minimum monthly charge for firm power supplied to New Jersey Power & Light Company was deferred until a new interconnection between the two systems is established.

The new contract indicates the Jersey Central is to become an important source of power for New Jersey Power & Light Company, which, as will be established later, is engaged in extensive interstate transactions in electrical energy.

In delivering energy—

MR. PAXSON: (interposing) I object to stating will establish. If he wants to establish, establish it.

THE WITNESS: Give me time. It is in proper sequence.

MR. PAXSON: Suppose he never does.

EXAMINER SPENCER: Strike that from the record that it "will be established later" and proceed.

MR. McALLISTER: That is entirely satisfactory later, Mr. Examiner.

EXAMINER SPENCER: If it is established it will be in the record.

MR. McALLISTER: The answer then will read it is engaged in extensive interstate transactions in electrical energy which is the statement of the witness, qualifying description eliminated, which is entirely satisfactory to me.

THE WITNESS: In delivering energy to Public Service Electric and Gas Company and New Jersey Power & Light Company, Jersey Central is drawn into extensive interstate commerce transactions which take place over the boundary lines of the state of New Jersey.

MR. AUTENRIETH: Objected to as a conclusion without any evidence to support it.

THE WITNESS: I will give you the evidence.

BY MR. McALLISTER:

Q. Mr. Grimsley, does the New Jersey Power & Light Company file with the Federal Power Commission various annual reports and sworn statements which set forth the results of its operations?

A. It does. It has.

Q. It does and it has, isn't that correct?

A. Well, I think I should prefer to reply to that it has.

Q. It has filed it?

A. Yes, sir.

Q. Have you examined certain of those reports?

A. I have.

Q. Particularly which reports set forth the results of their operations so far as energy transmission and generation and so forth is concerned?

A. Well, some of the data, if not all, may have been taken from—

Q. (interposing) I am not referring to any particular exhibit. I am referring to their reports.

A. Well, I have used all of those reports available in making the study and in preparing this general picture of the operations of the company.

Q. What I am asking you, what reports are those, the annual reports of the company?

A. I think I have used both, which can be checked, F. P. C. No. 1 and the power statement form 64.

Q. Have you prepared an exhibit, Mr. Grimsley, which will set forth the result of your studies of the New Jersey Power & Light Company?

A. I have.

Q. I show you an exhibit and ask you if that is the exhibit which you have prepared.

A. That is correct.

MR. McALLISTER: I offer at this time the exhibit which is identified by the witness, as Commission's counsel Exhibit No. 3.

MR. PAXSON: Just a moment, I would like to see what this is.

BY EXAMINER SPENCER:

Q. In the meantime, Mr. Grimsley, is that made from reports on file with the Commission?

A. Yes, sir. It is purely statistical.

BY MR. McALLISTER:

Q. But nevertheless the figures you record here were taken from the reports filed with the Federal Power Commission?

A. That is correct.

Q. And those reports are the reports which you set forth in the footnote at the bottom of this exhibit?

A. That is correct.

MR. AUTENRIETH: Subject to a motion to strike it later, I won't have any further objection. I reserve that right.

EXAMINER SPENCER: Let the record so show.

MR. McALLISTER: That is one of the most unusual motions. That is one that prevails at all times. It doesn't call for a ruling at this time, and if there is a basis for such ruling it must be made to appear at the time the motion is made.

EXAMINER SPENCER: Let the record show the report is admitted as Commission's Exhibit No. 3. Any motion you want to make to strike or otherwise can be entertained later.

(The document referred to was marked Commission's Exhibit No. 3 and received in evidence.)

MR. AUTENRIETH: That is all I desire to do, if something develops later.

EXAMINER SPENCER: You may proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. Mr. Grimsley, where does the New Jersey Power & Light Company operate?

A. New Jersey Power & Light Company operates in the northwestern section of New Jersey.

Q. By reference to Exhibit No. 1 will you indicate how the territory is served and the general area served by this company is indicated on that exhibit?

A. This system, together with that of Metropolitan Edison Company, in Pennsylvania, forms a continuous service area of all Associated Gas & Electric properties extending ffom the New York state line south through western New Jersey into eastern Pennsylvania. The territory served by New Jersey Power & Light Company, is identified on Exhibit No. 1 by the green color, or with the green color.

Q. What generating facilities does the Jersey Power & Light Company own and operate?

A. To meet its own requirements and deliver energy to adjoining systems—

Q. (interposing) Deliver energy—

A. (interposing) New Jersey Power & Light Company has steam generating plant of 55,000 kilowatts located at Holland, New Jersey, which generated 323,725,360 kilowatt hours during the year 1937.

The remaining capacity in the system consists of a small hydro plant of 270 kilowatts, which is not interconnected with the main transmission network. Inasmuch as the Holland plant is out of operation from 300 to 900 hours a year, the system is for such periods entirely dependent upon outside sources of supply.

New Jersey,—

MR. PAXSON: I object to the statement inasmuch as it is out of operation. Is there any testimony it is out of operation?

BY MR. McALLISTER:

Q. What does the record show, Mr. Grimsley?

A. Your own statement in the report.

Q. When you say record, you mean report of the company itself to the Federal Power Commission?

A. That is right.

Q. As contained in the regular reports and sworn to by company officials?

A. That is correct.

EXAMINER SPENCER: Will that report be offered?

MR. McALLISTER: The particular page in the report or the particular part will be read into the record, depending upon this area and the amount of material included.

EXAMINER SPENCER: Subject to that the objection is overruled.

BY MR. McALLISTER:

Q. I hand you the report and ask you to read it.

A. The New Jersey Power & Light Company's annual report on Form F. P. C. No. 1, filed April 30, 1938, for the year 1937, on page 532, line 7, shows opposite or on the same line with the entry "Connected to load" Gilbert plant 7,837 hours. On line 9, opposite the entry "Held in cold reserve" 923 hours.

In the New Jersey Power & Light Company's statement of the production, transmission and utilization of electrical energy for the years 1934, 1935, 1936, page 7, shows the Holland plant was connected to load during 1934, 8,106 hours, in 1935 7,887 hours, in 1936 8,449 hours.

Q. Mr. Grimsley, what would be the total number of hours connected to load if it was continuously operated throughout the 365 days in the year?

A. Usually 8,760 hours is used.

Q. So that the difference between 8,760 and the number of hours you have given indicate the number of hours it was not connected with load?

A. That is correct.

Q. So that the reports of the company to the Federal

Power Commission do record support for the statement which you made that the Holland plant was out of operation 300 to 900 hours per year?

A. They do.

Q. Mr. Grimsley, in the course of your testimony, you have referred to interchange between New Jersey Power & Light Company and certain companies located in the State of Pennsylvania.

Will you state or indicate from your exhibit what the magnitude of this transaction is?

A. New Jersey Power & Light Company from the records is an important source of power for Metropolitan Edison Company in Pennsylvania, to which it supplies annually in amount perhaps from 2,000,000 to 7,000,000 kilowatt hours of firm power and from 150,000,000 to 200,000,000 kilowatt hours of non-firm power. It also supplies non-firm power to Central Hudson Gas and Electric Corporation in New York, although transactions in this direction have diminished from over 20,000,000 kilowatt hours in 1935 to only 21,000 kilowatt hours in 1937. Central Hudson Gas and Electric Corporation operates in New York state and delivered to New Jersey Power & Light Company from 14,000,000 to 21,000,000 kilowatt hours per year during the last four years.

Q. Mr. Grimsley, in your statement with respect to the delivery of firm power to Metropolitan Edison Company, you say that ranged from 2,000,000 to 7,000,000 kilowatt hours per year, firm power during the years 1934 to 1937 inclusive. Will you examine the Exhibit, which is Exhibit No. 3, and indicate where that information is shown?

A. On Exhibit No. 3 New Jersey Power & Light purchased from Metropolitan Edison Company firm energy during the year 1934, 646,642 kilowatt hours; in 1935, 654,077 kilowatt hours; in 1936, 1,586,794 kilowatt hours.

Non-firm power energy purchased from Metropolitan

Edison for the year 1934 was 151,142,208 kilowatt hours; 1935, 61,241,795 kilowatt hours; 1936, 35,490,468 kilowatt hours; and 1937, 55,359,136 kilowatt hours.

Q. Mr. Grimsley, what I had in mind was not the power purchased. The question related to the energy sold to Metropolitan Edison and I note in column headed 1937 opposite item 1, subdivision F, there is a blank. I show you a photostatic copy of annual report of New Jersey Power & Light Company and ask you whether you can supply that figure which supports the statement that the quantity of firm energy sold ranged from two to seven million kilowatt hours per year during the year 1937 is shown by the reports of this company?

A. The report shows the New Jersey Power and Light Company delivered to Metropolitan Edison Company for the year 1937, 6,634,089 kilowatt hours.

Q. Had that figure been available it would have been included in the exhibit at the time it was prepared?

A. That is correct.

Q. Now, Mr. Grimsley, will you state what energy was received from New Jersey Power & Light Company from other public utilities?

A. Energy obtained from adjoining systems in 1937 amounted to 84,000,000 kilowatt hours of which 14,000,000 were obtained from Public Service Electric and Gas Company, and the balance from outside the state.

Under contract dated February 6, 1937, however, Jersey Central will supply a considerable part of the capacity required. This contract, which will become fully effective, upon the completion—

MR. PAXSON (interposing): Just a moment. What are you trying to testify now? What is going to happen in the future?

THE WITNESS: No, under the terms of the contract.

MR. PAXSON: Or something else? The date on which the Public Utility statute was enacted was March 13, 1938, and I object to any inquiry as to what might happen.

EXAMINER SPENCER: That contract has been admitted in evidence, has it not?

MR. McALLISTER: It has.

EXAMINER SPENCER: Let the contract speak for itself.

BY MR. McALLISTER:

Q. Mr. Grimsley, the contract to which you have just made reference, is that the contract which you discussed in connection with your description of the property of Jersey Central Power & Light covering interchange between that company and New Jersey Power & Light?

A. That is correct.

MR. AUTENRIETH: The February 6, 1937 contract, is that the one you referred to?

BY MR. McALLISTER:

Q. Mr. Grimsley, will you state the location within which the Public Service Electric and Gas Company operates within the state of New Jersey as shown by Exhibit No. 1?

A. Public Service Electric and Gas Company serves the territory which extends from the northern boundary of New Jersey, south across the state as far as Trenton and Camden. It extends from New York to the Pennsylvania state line and serves a large industrial area in New Jersey. In addition to its electrical operations this company owns and operates extensive gas and transportation facilities in the state.

Q. What generating facilities does it own and operate?

A. Public Service Electric and Gas Company owns and operates five large generating stations with a total installed capacity of 684,450 kilowatts. In 1937 four of these power plants produced 2,154,430,978 kilowatt hours.

Perth Amboy plant with an installed capacity of 20,250 kilowatts did not generate any energy during the past four years. It is understood from the reports to be cold standby plant which could be put into service within 24 hours. In addition, this company purchased from other utilities 648,258,772 kilowatt hours and sold at wholesale to other utilities 57,921,060 kilowatt hours. The net available for the system in this year was 2,744,771,690 kilowatt hours.

Q. Mr. Grimsley, these figures to which you have made reference, are those figures which are reported by this company under oath in its various reports to the Federal Power Commission?

A. That is correct.

Q. Now, have you prepared a statement setting forth in tabular form the information reported by this company to the Commission showing its generating capacity by plants, annual operation of plants and other operating data showing its operation?

A. I have.

Q. I ask you if that is the exhibit to which you make reference and which was prepared by you?

A. This is the one.

MR. McALLISTER: Mr. Examiner, I offer at this time the exhibit identified by the witness and ask it be received in evidence as Commission counsel's Exhibit No. 4.

EXAMINER SPENCER: Any objection?

MR. PAXSON: No, reserving our right to object and cross examine thereafter.

EXAMINER SPENCER: It will be received as Commission's Exhibit No. 4.

(The document referred to was marked Commission's Exhibit No. 4 and received in evidence.)

BY MR. McALLISTER:

Q. Mr. Grimsley, at the time of the annual system peak, from what source does Public Service Electric and Gas Company secure its requirements?

A. In time of annual system peak, power plants of Public Service Electric & Gas Company supplied 471,900 kilowatts and received from other utilities 80,000 kilowatts including 9,000 kilowatts from Jersey Central Power & Light Company, 32,000 from Philadelphia Electric Company and 32,000 kilowatts from Pennsylvania Power and Light Company, and the remainder from other systems in New Jersey, Pennsylvania and New York.

Q. The figures that you gave there, Mr. Grimsley, refer to 1937, do they not?

A. That is correct. The total system load, including deliveries to several municipal systems and 100 kilowatts to Jersey Central plant at Wrightstown and New Lisbon amounted to 551,900 kilowatts. The generating capacity of Public Service Electric and Gas Company connected to the load at the time of the annual system peak was 563,850 kilowatts out of a total system capacity of 684,450 kilowatts. These figures indicate that Public Service Electric and Gas Company for economic and operating considerations used an appreciable supply of power from other utilities operating in New Jersey, Pennsylvania and New York in taking care of its annual system peak.

The inter-connections and energy transactions between Public Service Electric and Gas Company and Jersey Central Power & Light Company were discussed at some length previously and will be taken up again in greater detail later. Similarly the interconnections and energy

transactions between Public Service Electric and Gas Company and Staten Island Edison Corporation will be taken up in greater detail later.

Q. The figures you refer to throughout your statement, Mr. Grimsley, are those figures which are recorded and shown on Exhibit No. 4, are they not?

MR. PAXSON: Will you read that question, I could not hear that.

(The reporter thereupon read the pending question as recorded.)

BY MR. McALLISTER:

Q. I say the figures he used in his statement he just read into the record are those figures which were taken from Exhibit No. 4?

A. Well, I think all of the energy transactions, but the capacity transactions—

Q. (interposing) The capacity transactions are not shown on Exhibit No. 4?

A. Yes. Some of them. The annual system demand for 1937 amounted to 551,900, which I referred to, is shown there under system capacity and annual demand at time of system peak, and the system capacity of 684,450 is shown and the installed capacity connected at time of peak amounts to 563,850, is shown in the purchased capacity from other utilities, amounting to 80,000 are shown on this Exhibit.

Q. Are shown on this exhibit?

A. Are shown on this exhibit.

Q. The other figures which you stated in your testimony were obtained from what source?

A. The annual report made by the company to the Commission.

Q. Mr. Grimsley, where is the Staten Island Edison Corporation located?

A. The Staten Island Edison Corporation owns one

generating plant, which is located at Livingston, New York.

Q. Will you indicate on Exhibit No. 1 the area that is served by Staten Island Edison Corporation?

A. The territory shown on Exhibit 1 in red color and the legend as company E. Its operations are wholly confined to that of Staten Island in the state of New York. Livingston, it will be noted, is located at the northern extremity of the Island.

Q. You mentioned that there was one generating plant at Livingston. What is the capacity of that plant?

A. The capacity of that plant is 47,500 kilowatts, of which 16,000 kilowatts is cold reserve, consisting of two units installed in 1916 and 1920. For additional reserve capacity the Staten Island Edison Corporation depend to a capacity of 25,000 kilowatts upon its interconnection with Public Service Electric and Gas Company at Mechanic Street Substation, located in Perth Amboy, New Jersey.

This statement of additional reserve appears on page 28 of the power system statement for the year December 31, 1937 filed with the Commission.

Q. By whom?

A. By the Staten Island Edison Corporation, form 64. This interconnection which can supply emergency service or service during repair periods and for future growth is much more reliable and dependable by reason of the availability of the Jersey Central facilities connected to Public Service Company's Mechanic Street Substation.

Q. Staten Island, I believe you stated, filed certain annual reports with the Federal Power Commission, showing the result of its operations?

MR. PAXSON: Just a moment. May I have that last question and answer read? It seems we are getting a lot of opinions and conclusions in here.

MR. McALLISTER: As I was stating, Mr. Examiner, it seems rather unusual to rehash and reconstruct

questions and answers of this character that are read carefully and slowly so that they can be objected to without anything, in substance, being derived from the objection, but I have no objection to going ahead and reading the question and answer.

EXAMINER SPENCER: Read that last question and answer.

MR. McALLISTER: Of course at any time I will be glad to have him read back any question, but it was the preface to your request that indicated you had something else in mind.

MR. PAXSON: That is the reason I asked it.

EXAMINER SPENCER: Read the last question and answer.

(The reporter thereupon read the preceding question and answer as recorded.)

MR. PAXSON: I object to that as a conclusion. Nothing has been shown about any interconnection between Jersey Central and Staten Island or any connection. That is opinion testimony.

MR. McALLISTER: It is not correct, Mr. Examiner, because the testimony here has shown the interconnection between Jersey Central and the Mechanic Street substation and between Mechanic Street substation and Staten Island Edison Corporation.

EXAMINER SPENCER: I understand the witness states in his expert testimony in that connection that the interconnection is beneficial to the Staten Island Edison Corporation.

MR. McALLISTER: He has made the statement very clearly after relating all the facts that are necessary in his opinion to support the statement that he makes.

MR. PAXSON: It has not been shown that Staten Island has any right to or can rely on anything passing between Jersey Central and Public Service. It has not been shown there is any firm contract whereby Public Service is entitled to get any electrical energy from Jersey Central.

EXAMINER SPENCER: Is there anything in the record to show any interconnection there?

MR. McALLISTER: Most assuredly, Mr. Examiner, even Exhibit No. 1, the map, shows that interconnection in there, and it has been shown directly by the testimony of the witness that the Jersey Central Power & Light Company connects with Public Service and Gas Company at Mechanic Street substation of the latter company, and there is an interconnection between that same substation and Staten Island Edison.

EXAMINER SPENCER: My recollection is there was evidence to that effect. There was no testimony it was firm power.

MR. PAXSON: There is evidence there is an interconnection, if your Honor please, at the Mechanic Street substation or somewhere in that vicinity. There has been some testimony there is an interconnection between Staten Island and Public Service, but there is no testimony that Staten Island can rely on any power coming from Jersey Central, that it is in any way dependable. He says it is more reliable. The evidence is it has no firm power between Public Service and Jersey Central as far as I understand Mr. Grimsley. The contract provides there is no firm power so how can anybody rely on something that is not firm, whether casual or incidental, I don't know.

If Mr. Grimsley would only state the facts and

not give conclusions we could get along further. Let the Commission find the conclusions.

BY EXAMINER SPENCER:

Q. Mr. Grimsley, do you know whether there is any contract providing for firm power in that connection or any other power?

A. I will come to that.

MR. McALLISTER: Mr. Examiner, I would just like to support the testimony which the witness has put in and the conclusions which he has drawn to show from the report of the company, from Staten Island Edison Corporation, they state under oath in their report to the Commission exactly what Mr. Grimsley has stated on the record as his opinion from the study of the statistics which he has followed.

EXAMINER SPENCER: And you wish to introduce that?

MR. McALLISTER: I would like to have included in the record, page 28 of the power system statement filed with the Federal Power Commission by Staten Island and received by the Commission on July 21, 1938.

EXAMINER SPENCER: All right.

MR. McALLISTER: And page 28 of the same report which shows present reserve capacity of (a) and I am reading from page 28—

EXAMINER SPENCER: (interposing) All right.

MR. McALLISTER: Their present reserve capacities are (a) one 10,000 Kw and one 6,000 Kw turbine which can be started at any time and (b) interconnection with Public Service Electric and Gas Com-

pany which has a capacity of 25,000 KVA and is connected to system continuously. Transmission lines are capable of supplying all parts of system from interconnection. In other words, they not only tied it in in their statement here, but they say the transmission lines from the point tied in are sufficient to carry its energy to all points of the system.

EXAMINER SPENCER: You offer them in evidence?

MR. McALLISTER: Those two sheets.

EXAMINER SPENCER: I assume there is no objection?

MR. AUTENRIETH: I have no objection to them being introduced as a statement by Staten Island Edison. I don't think Jersey Central Power & Light is any way bound by the report of Staten Island where such an important thing as the status of Jersey Central is involved, but you can introduce them for what they are worth.

EXAMINER SPENCER: Let the record show pages 23 and 28 of this report are made a part of the record by reference.

BY MR. McALLISTER:

Q. Now, Mr. Grimsley, you are more familiar with that report than I am, and I would like to have you indicate whether there are any other pages in there which show the capacity of the plant of Staten Island at the time of its peak load.

A. And demand?

Q. And demand, yes.

A. On page 5 of this report the net demand on plant was 37,700 kilowatts. Therefore—

Q. (interposing) What was the total installed capacity as stated by the report?

A. The total installed capacity was 47,500.

Q. And its cold standby?

A. 16,000.

Q. Leaving what amount?

MR. PAXSON: Does that report state cold standby or is that your conclusion?

MR. McALLISTER: The statement I just read, Mr. Paxson, so stated, and said it could be started on one day's notice. The statement I just read in there states that.

MR. PAXSON: I just asked you.

THE WITNESS: The rating of the turbines—

EXAMINER SPENCER: (interposing) Just a moment, the last question that Mr. McAllister asked, answer that. He asked the difference—

BY MR. McALLISTER:

Q. I asked you what the installed capacity was, what the cold standby was, that the operating capacity was at time of annual peak, and then I wanted to match that with the total peak load and demand at that particular time. I think you have all those figures there and I would like to have you state them for the record so it will clearly show on what those figures are based and in support of your conclusion. You have stated it in generalities, but I would like to have it in detail.

EXAMINER SPENCER: Before you answer that question, Mr. Grimsley; we will recess until 1:30. You can resume after recess.

(Whereupon at 12:30 o'clock p. m., a recess was taken until 1:30 o'clock p. m. this day.)

Afternoon Session.

(Met, pursuant to the recess, at 1:30 o'clock p. m.)

EXAMINER SPENCER: Gentlemen, the hearing will now come to order.

A. H. GRIMSLEY,

the witness at the time of adjournment, resumed the stand and, upon further examination, testified as follows:

Direct Examination (Resumed)

BY MR. McALLISTER:

Q. Mr. Grimsley, at the time of the taking of the recess you were giving consideration to a question which I asked. I asked you to point out in the report of the Staten Island Edison Corporation what was the capacity of the generators on the line at the time of the annual peak and the reserve capacity of the system available in case of the failure of a generator upon which they were relying at the time of that system annual peak. Now, by reference to the annual report which was filed with the Commission, will you please state specifically what that shows to be the annual peak of the Staten Island Edison Corporation?

A. It reported a peak for the year 1937 of 31,700 kilowatts, occurring December 27th between 6 o'clock and 7 o'clock p. m.

Q. What does the report show to be the capacity of the generators on the line at that time?

A. There were two generators, name-plate reading, 30,000 kilowatts. On page 5 the statement is made that their total capacity at that time was 35,000 kilowatts.

Q. In case of failure of one of these generators, what would be the available source of supply to the Staten Island Edison Corporation?

A. This statement appears on page 5 of the report, Form No. 64, that additional turbines totaling 16,000 kw. and additional boilers not operating but could be put in operation at any time.

Therefore, if one of the 15,000 k. w. turbines would fail at the time of such a peak, the equivalent supply would be drawn from Mechanic Street Substation of the Public Service Company of New Jersey.

BY MR. PAXSON:

Q. Are you saying that the report says that? You are testifying as to what the report shows, or are you giving your opinion?

A. What I am saying is that that would automatically take place.

Q. You were testifying what this report says. Now, I want to know if the last statement you made about Mechanic Street Substation comes from that report?

A. All of these facts I just related come from this report.

Q. Is there any statement in the report to that effect, saying that they are relying upon the Mechanic Street Station to take care of their own peak load?

A. Oh, yes. That was read into the record this morning.

MR. PAXSON: I just want to understand what he says.

MR. McALLISTER: I want to make it clear.

THE WITNESS: Page 28—"Present reserve capacity (a), one 10,000 kilowatt and one 6,000 kilowatt turbine which can be started at any time and, (b) inter-connection with Public Service Electric and Gas Company which has a capacity of 25,000 kilowatts and is connected to system continuously. Transmission lines are capable of supplying all parts of system from inter-connection."

Therefore, it follows that if one of these turbines failed, then automatically that load would be picked up by the Mechanic Street Substation.

BY MR. McALLISTER:

Q. That connection between Staten Island and Mechanic Street Substation is operated as a closed connection, is it?

A. At all times. They are operating two systems in parallel or in synchronism.

Q. In connection with your study of the Staten Island Edison Corporation, have you prepared a statistical exhibit from the annual reports and other reports filed by the Staten Island Edison Corporation showing the results of their operations and generation and other information for the years 1936, 1937, and also the years 1934 and 1935?

A. Yes, sir.

Q. Is that the exhibit that you say you have prepared (indicating)?

A. It is. This is the exhibit (indicating).

MR. McALLISTER: Mr. Examiner, I offer as Commission Exhibit No. 5 the exhibit which has just been identified by the witness and I ask that it be received in evidence as Commission Exhibit No. 5.

EXAMINER SPENCER: Without objection it will be received and marked Commission Exhibit No. 5.

MR. PAXSON: No objection, except reserving the right to check.

(The document above referred to was received in evidence and marked Commission's Exhibit No. 5.)

BY MR. McALLISTER:

Q. Mr. Grimsley, does Exhibit No. 5 show the electric energy or power generated in the year 1937 by Staten

Island Edison Corporation?

A. It does.

Q. What does the exhibit show?

A. In 1937 Staten Island Edison Corporation generated in its Livingston Power Plant 127,054,880 kilowatt hours.

Q. What did it purchase and deliver through other utility systems?

A. In addition, this system purchased from Public Service Electric and Gas Company for the same period 3,093,400 kilowatt hours over the line connecting the Mechanic Street Substation in Perth Amboy, New Jersey, and its Atlantic Substation on Staten Island, New York.

During the same year Staten Island delivered to the Mechanic Street Substation 3,140,290 kilowatt hours.

Q. Does your exhibit show the quantity of energy delivered to and from the Public Service Electric and Gas Company by Staten Island Edison Corporation for the years preceding the year 1937?

A. It does.

Q. It shows, does it not, the deliveries and purchases for 1935 and 1936?

A. That is correct.

Q. What was the source of the information which you reported on Exhibit No. 5, Mr. Grimsley?

A. All data for the years 1934, 1935, and 1936, are taken from system reports to the Federal Power Commission on form 11-127. All data for 1937 was taken from reports to the Federal Power Commission on forms F. P. C. No. 1 and F. P. C. No. 64.

Q. Mr. Grimsley, under what arrangement is the electric energy delivered to Staten Island Edison Corporation by Public Service Electric and Gas Corporation?

A. A copy of contract dated January 20, 1936, covering emergency service and economy interchange between Public Service Electric and Gas Company and Staten Is-

land Edison Corporation through the Mechanic Street Substation is on file with this Commission and is identified as Public Service Electric and Gas Company Rate Schedule No. 5.

MR. McALLISTER: Mr. Examiner, I ask that the rate schedule just referred to by the witness and identified in the files of the Commission as Public Service Electric and Gas Company Rate Schedule F. P. C. No. 5 be received in evidence by reference.

It is an official record, and, as I stated before, the file is in the Commission and is entitled to consideration.

EXAMINER SPENCER: Is there any objection?

MR. PAXSON: No objection.

EXAMINER SPENCER: It will be received by reference.

(The document referred to was received by reference.)

MR. McALLISTER: Mr. Examiner, this morning there were a number of exhibits having no number which were put in. They were put in by reference and were identified by the designation in the files of the Commission by number, the same as you would identify a tariff schedule, without actually putting them into the record.

EXAMINER SPENCER: Very well. A number will not be assigned to it.

BY MR. McALLISTER:

Q. Mr. Grimsley, have you prepared a statement showing the energy transactions between the Jersey Central Power and Light Company, Public Service Electric

and Gas Company, New Jersey Power and Light Company, and Staten Island Edison Corporation for the year 1937?

A. I have.

Q. Is this the statement which was prepared by you (indicating)?

A. This is it.

Q. From what source was this information obtained?

A. It was taken from System Reports to the Federal Power Commission.

Q. By what you mean the System Reports filed by each individual company?

A. That is correct.

MR. McALLISTER: Mr. Examiner, I offer the exhibit just identified by the witness as Commission Exhibit No. 6 and ask that it be received in evidence.

MR. PAXSON: I would like a few minutes to look at this one.

EXAMINER SPENCER: You may do so.

MR. PAXSON: No objection.

EXAMINER SPENCER: It will be received as Commission's Exhibit No. 6.

(The document above referred to was received in evidence and marked Commission's Exhibit No. 6.)

BY MR. McALLISTER:

Q. Mr. Grimsley, what sources are supplying the requirements of electric energy to the operating systems in the State of New Jersey which are shown on your exhibit received in evidence as Commission's Exhibit No. 6?

A. The facilities of Jersey Central Power and Light Company, Public Service Electric and Gas Company, New Jersey Power and Light Company and Staten Island Edison Corporation.

Q. Those are the four companies?

A. Yes.

Q. I am asking you from what source they secure their requirements both within the State and from without.

MR. PAXSON: I object to the question. There is nothing on this exhibit which shows anything about anything coming from without except Staten Island—if he is referring to that.

EXAMINER SPENCER: Does that exhibit show the sources from which they drew their requirements?

MR. McALLISTER: No, Mr. Examiner.

THE WITNESS: It shows the purchases and sales between the four companies respectively.

MR. PAXSON: I have no objection to his telling about the sales at all.

EXAMINER SPENCER: You may proceed.

THE WITNESS: Will you repeat the question, please?

BY MR. McALLISTER:

Q. I am asking you from what sources they secure their requirements.

EXAMINER SPENCER: Are you examining the witness with respect to this particular exhibit, Mr. McAllister?

MR. McALLISTER: I am not, Mr. Examiner.

THE WITNESS: Exhibits Nos. 2, 3, 4 and 5, show energy transactions with the Philadelphia Electric Company and Light, Central Hudson Gas and Electric, and Metropolitan Edison, located in adjacent States, namely, New York and Pennsylvania.

BY MR. McALLISTER:

Q. In other words, those four exhibits to which you refer show both the sources of power for each individual company within the State and they also show the sources of energy, if any, coming to those systems from without the State?

A. That is correct.

Q. In other words, a complete answer to the question can be obtained by examining those four exhibits to which you referred?

A. That is correct.

Q. And those exhibits show the operating utilities in New Jersey import as well as export energy to the adjoining States?

A. That is correct.

Q. Will you please describe the operations which result in or which make possible this interchange of energy between operating companies in the State of New Jersey and operating companies in Pennsylvania and other adjoining States?

A. For economic and operating reasons, and because it is distinctively advantageous, the utilities operating in New Jersey not only import energy from Pennsylvania and New York but also export large amounts of energy to Pennsylvania, all of which they place over this network shown on Exhibit No. 1. Monthly transfers of energy across all State boundaries are reported to the Federal Power Commission by the utilities, which maintain records of such interstate flows of energy. A compilation of such data for the State of New Jersey over the period January to July, 1938, is prepared in the form of an exhibit.

Q. Is this (indicating) the exhibit to which you refer?

A. Yes, sir; it is.

Q. Was that exhibit prepared by you?

A. That is correct.

MR. McALLISTER: Mr. Examiner, I offer in evidence as Commission's Exhibit No. 7 the statement just identified by the witness.

EXAMINER SPENCER: The statement will be received.

MR. PAXSON: Just a moment, please. May I look at this exhibit?

EXAMINER SPENCER: Yes, certainly.

MR. PAXSON: They are filing so many statistics that we do not want to go too fast. There may be objections to it.

EXAMINER SPENCER: I believe you said that was prepared from reports or records of the Commission?

MR. McALLISTER: His testimony so stated, Mr. Examiner, that it was prepared from the Commission's records.

EXAMINER SPENCER: I so understood.

BY MR. McALLISTER:

Q. Is that correct, Mr. Grimsley?

A. Yes, sir.

MR. PAXSON: I object to the receipt of this statement in evidence as there is nothing on the exhibit which in any way ties it up with the Jersey Central Power and Light Company, whose status is now under discussion, and it is just a general compilation of what Jersey exports and imports. It may be interesting, but wrong conclusions might be drawn therefrom.

EXAMINER SPENCER: What bearing does this have upon the question, Mr. McAllister?

MR. McALLISTER: The exhibit merely shows part of the whole picture relating to the tie-up between the various companies and their interstate operations. It shows the extent to which the State of New Jersey relied upon energy from adjoining states to satisfy their requirements. You will note that is stated in thousands of kilowatt hours. So those transactions are very substantial and very large if you add on there another three ciphers to each one of the figures that appears thereon. The significance of the exhibit will be made to more clearly appear as the testimony of the witness progresses; and the operations of which this is an integral part are set forth in the record.

MR. PAXSON: If the Examiner please, this exhibit might be interesting to someone, but I contend it has no bearing in this case. The question is purely as to the status of the Jersey Central Power and Light Company. There is nothing in any of these exhibits which shows the Jersey Central Power and Light Company imports a kilowatt from outside the State.

THE WITNESS: We propose to show that.

MR. PAXSON: I have made my objection.

MR. McALLISTER: The only trouble, Mr. Examiner, is that Mr. Paxson goes too rapidly. If he waits until the end of the case then it may appear to him more clearly how this transaction took place. We can not show our whole case instantaneously; otherwise we would not be here as long as we have been. We must take it up in an orderly way.

EXAMINER SPENCER: There has been evidence that there are inter-connections between the Jersey Central and other utilities which do an interstate business, has there not?

MR. McALLISTER: Most assuredly. Every

one of the exhibits so far introduced shows transactions outside of the State, even including the Jersey Central.

EXAMINER SPENCER: There has been some testimony that the Jersey Central Power and Light has some inter-connections with other companies.

MR. McALLISTER: And there have been some exhibits introduced which show these other companies have had some interstate or outside the State transactions.

MR. PAXSON: But there is nothing in any of these exhibits to show that Jersey Central imports or exports one kilowatt.

EXAMINER SPENCER: I will overrule the objection and admit it in evidence as Commission's Exhibit No. 7.

MR. PAXSON: An exception, please.

EXAMINER SPENCER: An exception is noted for respondent.

(The document above referred to was received in evidence and marked Commission's Exhibit No. 7.)

BY MR. McALLISTER:

Q. Is this Exhibit No. 7, Mr. Grimsley, an exhibit which shows that during each and every month energy was imported from other States to satisfy the requirements of operating utilities in the State of New Jersey?

MR. PAXSON: Just a moment, please. He is talking about the operating utilities in the State of New Jersey. I don't know what that means.

Will you name a few of them? I think there are other operating utilities.

MR. McALLISTER: I am referring to those utili-

ities that are shown on Exhibit No. 1 and identified in the legend as B. C. D. and E., the Public Service Electric and Gas Company, Jersey Central Power and Light Company, New Jersey Power and Light Company, and Staten Island Edison Corporation.

MR. PAXSON: I call attention to the fact that Staten Island Edison Corporation is not a New Jersey utility.

MR. McALLISTER: That is on Staten Island. We will admit that. We have dealt with it.

Then the three companies that are referred to there, Mr. Grimsley, eliminating Staten Island.

THE WITNESS: During every month during this period it shows the State of New Jersey received from and delivered to other States electric energy in large quantities.

BY EXAMINER SPENCER:

Q. Do you mean the State of New Jersey or do you mean these three companies?

A. I mean these companies as shown in this network, Exhibit No. 1.

BY MR. McALLISTER:

Q. Will you please name the three companies?

A. Philadelphia Electric Company—

Q. Now, Mr. Grimsley, we are talking about those in New Jersey which have received the energy from outside the State.

A. Public Service Electric and Gas Company, New Jersey Power and Light Company and Staten Island Edison Corporation.

Q. The Staten Island is over in New York?

A. It receives and delivers energy.

BY EXAMINER SPENCER:

Q. In New Jersey?

A. Yes, sir; in New Jersey.

EXAMINER SPENCER: Then, it would be confined to the two companies.

BY MR. McALLISTER:

Q. The three companies?

BY EXAMINER SPENCER:

Q. Did the Jersey Central Power and Light Company receive any?

A. The three companies.

Q. Specify which three.

A. I will name them again to make the record clear, if you wish.

BY MR. McALLISTER:

Q. Will you please do so?

A. Public Service Electric and Gas Company, Jersey Central Power and Light Company and New Jersey Power and Light Company.

MR. McALLISTER: Mr. Examiner, may we have a recess of five minutes in order to straighten out some points here?

EXAMINER SPENCER: We will recess until 2:25.

(Thereupon a short recess was taken, after which the following occurred:)

EXAMINER SPENCER: You may proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. Mr. Grimsley, by reference to Exhibit No. 1, will you state for the record the transmission lines and interconnections shown thereon with reference to that area outside of New Jersey which is indicated in your testimony

as relied upon for the supplying of electric energy to the operating utilities in New Jersey which you named, namely, Public Service Electric and Gas Company, Jersey Central Power and Light Company and New Jersey Power and Light Company?

A. The map submitted as Exhibit No. 1 was prepared by the Federal Power Commission from individual system maps furnished by the electric utilities shows an extensive network of interconnected high tension transmission lines covering the southern part of the State of New York, northeastern and western part of New Jersey, the eastern and southeastern part of Pennsylvania and northeastern part of Maryland and Delaware. Single and double circuit lines of 66,000, 110,000, 132,000 and 220,000 volts extend from one end of this territory to the other, crossing State boundaries and interconnecting the power resources in this area into one large electric system. Among the utilities composing this system the following are of particular interest: Public Service Electric and Gas Company is interconnected with Staten Island Edison Corporation operating in New York, with Philadelphia Electric Company and Pennsylvania Power and Light Company operating in Pennsylvania and with Jersey Central Power and Light Company and New Jersey Power and Light Company operating in New Jersey.

Philadelphia Electric Company directly and through subsidiaries operates interconnected facilities in Pennsylvania, New Jersey, Maryland and Delaware. New Jersey Power and Light Company is interconnected with Central Hudson Gas and Electric Corporation operating in New York and Metropolitan Edison Company operating in Pennsylvania. Jersey Central Power and Light Company is interconnected with both Public Service Electric and Gas Company and New Jersey Power and Light Company.

One of the most important electrical and mechanical

characteristics of an interconnected alternating current power system is that each generator connected to such a system, regardless of the State in which it may be located, must operate in exact step or synchronism with every other generator. The electrical ties between each generator and every other one is as definite and real as though they were mechanically interconnected by shafting and gears. It is no more possible for an individual generating unit of an interconnected system to set its own pace than it would be for an individual player in an orchestra to decide on his own time or rhythm. Just as the conductor of an orchestra or one of the instruments must set the pace for all the players in the orchestra, so must one predetermined generating unit or group of units, ordinarily referred to as the governing unit or governing station, set the pace for all generating units in all the powerhouses of the system. This control of the synchronous speed in an interconnected system can be accomplished only by the governing unit or governing station picking up, or dropping, such portion of each load change as is necessary to dominate and control the speed of each of the other generating units on the system, and by exchanging such amounts of synchronizing power or energy as are necessary to hold the other generators in step.

Interconnected, operating in synchronism and interchanging power among themselves, these utilities together represent one large electric system serving the State of New Jersey and part of the adjoining states. The operating unity of this system can be perceived from the fact that they all operate in synchronism, with the electric frequency controlled and maintained for the whole by one of the larger power plants in the network which assignment is predetermined and not the result of accident. The flow of energy over the transmission lines of this system is governed by the basic laws of the electrical phenomenon. During any particular period of time energy from any one

power source will flow in all lines or circuits which are available to it at that time by the relative location and magnitude of the power supply and power consumption centers. In its flow electric energy does not recognize ownership of lines, and in serving a load will cross State boundaries when operating conditions in the network require such flow to take place. For the system as a whole any fluctuations in load or in supply in any part of the system are momentarily reflected through the whole of it. Any interchange of power between two utilities in one part of the system has a definite effect on the amount of energy which either of these two can receive from or deliver at the same time to utilities in another part of the system.

It follows, therefore, that energy delivered in large amounts by Jersey Central Power and Light Company to Public Service Electric and Gas Company at Mechanic Street directly affects, in amount and in time, the energy transactions between the latter company and either Philadelphia Electric Company or Pennsylvania Power and Light Company, or both. As established previously, deliveries of energy to the Mechanic Street substation represent an important outlet for the output of the South Amboy power plant. In turn, the availability of this energy to Public Service Electric and Gas Company is important not only as a source of power to supply its load, but it affects also this Company's transfers of energy in interstate commerce.

Q. Right at this point, Mr. Grimsley, before you proceed further, you made reference there to the South Amboy Power Plant. Who owns and operates that plant to which you made reference?

A. Jersey Central.

Q. Jersey Central Power and Light Company?

A. That is correct.

Q. Will you please proceed?

A. The realization on the part of some of the utilities serving adjacent territories in New Jersey and Pennsylvania of the benefits of a coordinated and to some extent unified operation resulted in the establishment of the so-called Pennsylvania-New Jersey pool.

By an agreement dated September 16, 1927, and by a number of supplements thereto Public Service Electric and Gas Company, Philadelphia Electric Company and Pennsylvania Power and Light Company have established a coordinated method of operating their existing electric facilities and the development of new facilities which has made possible improvements of service, savings in investment and expenses and other benefits to each of the three systems and thereby to the public served by each.

The effects of the coordinated operation of these three utilities on the electric service furnished by them and on the relation of each to other interconnected utilities not members of the pool can be seen from the following information submitted to the Federal Power Commission by Public Service Electric and Gas Company in its power system statement for the year 1937.

MR. PAXSON: If the Commission please, I move the testimony of Mr. Grimsley just given be stricken upon the ground that it is largely hearsay. He has purported to state all about the different transactions of Pennsylvania and Maryland, and says they are in synchronization and parallel, but it has not been shown that he knows anything about those systems; it is what he has read somewhere. I do not think that type of testimony is competent to establish the status of Jersey Central Power and Light Company.

EXAMINER SPENCER: The Examiner understands he is testifying from reports on file with this Commission.

MR. McALLISTER: That is correct. That is as I understand it.

EXAMINER SPENCER: His opinion is being given upon the facts which are on file.

MR. PAXSON: He says they come from the reports. We have not seen any of the reports of the Pennsylvania Power and Light or Delaware reports. He is drawing conclusions. If he wants to put the reports in evidence let him do it. He is making a lot of general conclusions as to operating matters. Perhaps he can do that as an expert; but he is also purporting to testify to a lot of facts.

EXAMINER SPENCER: I will hear from you, Mr. McAllister.

MR. McALLISTER: These are official reports on file with the Commission that are entitled to consideration as concerning records of operation maintained under the direction of and by order of the Federal Power Commission and reported annually to the Commission. The same identical report is filed by all utilities or are required by law to be filed. So there is no question as to the correctness and reliability of the energy transactions of operating characteristics or the physical characteristics of the property as recorded in these annual reports.

MR. PAXSON: If the Commission please, I do not see how we can cross examine a report. I do not see how it can be said that the Jersey Central Power and Light Company is in any way bound by any reports of a half a hundred different companies throughout the United States that are on file. We are not put on notice of it; we are not bound by it; and it does not mean anything so far as the Jersey Central Power and Light Company is concerned. It is on a certain

theory and as a basis for it he is making large statements of fact, as to synchronization, being in parallel, and he is drawing all kinds of inferences. It is entirely too broad and is all hearsay.

BY EXAMINER SPENCER:

Q. Mr. Grimsley, I understand you have testified from facts which you have secured from official records?

A. That is correct—and from observations on the property.

Q. Facts which you procured from reports and from your own knowledge and information?

A. Absolutely.

EXAMINER SPENCER: I shall overrule the objection.

MR. PAXSON: I note an exception, if Your Honor please.

MR. AUTENRIETH: Do I understand the basis of the ruling is that because a report is filed by some company not a party to this proceeding, something on which we can not cross examine, that we are bound by it?

EXAMINER SPENCER: No, I do not mean that: Commission's counsel will furnish the respondent with the names of the reports and where they can be found, if counsel so desire, and I so direct.

MR. AUTENRIETH: If we are to be confronted by facts we should be confronted in such manner with the statement itself so that it can be analyzed, to see whether it states correct facts. The report is blind.

EXAMINER SPENCER: I understand whatever facts come from the reports will be available to you. If there are any expert opinions stated, they are subject to rebuttal, of course.

MR. AUTENRIETH: That means we would have to go out into the field on the properties and check the reports as to accuracy. But we are confronted with this evidence. I do not think it clothes them with any great sanctity as evidence just because they are filed with the Commission.

EXAMINER SPENCER: This will be received only insofar as it affects the Jersey Central Power and Light Company.

MR. AUTENRIETH: I would like to add my objection on behalf of the Jersey Central to the reception in evidence.

EXAMINER SPENCER: An exception for the Jersey Central Power and Light Company is noted.

You may proceed.

BY MR. McALLISTER:

Q. Mr. Grimsley, I show you power system statements filed on behalf of Pennsylvania Public Service. I mean I show you statements filed on behalf of Public Service Electric and Gas Company received by the Commission on December 21, 1937, and I will ask you if that is the report to which you refer.

A. Yes, sir; it is.

Q. It is a verified, sworn report of that company?

A. Yes, sir.

Q. Signed by whom?

A. William J. Reynolds, Assistant Comptroller, and Percy S. Young, Vice-President in Charge of Finance.

Q. It is attested by both of those men whose names you have just mentioned?

A. That is correct.

Q. Will you please indicate the page in that report setting forth the information which you have referred to?

A. This is outlined in considerable detail on page

28-A and 28-B. It is probably all taken from those two pages; but I will check that.

MR. McALLISTER: Mr. Examiner, the statement submitted with the report and identified by the witness as pages 28-A and 28-B are offered by reference, and I ask that they be received in evidence.

EXAMINER SPENCER: I think it would be better to have the witness read them. Some of the other parties do not know what they are, and neither do I.

MR. PAXSON: Let me understand just what is going on. Are you offering something in evidence?

MR. McALLISTER: I offered pages 28-A and 28-B of the annual report of Public Service Electric and Gas Company and I ask that they be received in evidence.

MR. PAXSON: Objected to as mere hearsay and not binding upon either of these parties.

MR. AUTENRIETH: I join in the objection.

EXAMINER SPENCER: That is the report of the Public Service Electric and Gas Company. What does it purport to show generally?

MR. McALLISTER: It purports to show the results of the operations and transactions to which the witness was referring, upon which he based the statement that he just made. It is set out there in detail.

Mr. Examiner, the annual reports of this character submitted by an operating utility are reports based upon information currently maintained under order of the Commission and currently supplied at certain stated periods to the Commission. Reports of that

character are entitled to admission as official documents of the Commission when on file here. They are available to the public; they are available to those participating in this case, as well as any others for examination.

EXAMINER SPENCER: The Examiner recognizes that fact. The only question is whether it is pertinent to this particular inquiry. That is the basis of the objection. That is why I wanted it read. I can then determine whether or not it is. As I understand from the former testimony, this is offered for the purpose of tieing in all of the public utilities in that area, including the Jersey Central.

THE WITNESS: Which are physically interconnected and are interchanging energy.

EXAMINER SPENCER: And that evidence contained in that report bears upon that point?

THE WITNESS: Yes, sir.

MR. McALLISTER: It not only bears upon it; but this report that is made makes reference to this system interchange of related and interrelated companies to show how that operation on the whole does affect it.

MR. PAXSON: If the Commission please, I conceive this would certainly be admissible if the Public Service Electric and Gas Company were a party respondent. It would be an admission against interest. I don't know yet what it contains or whether it makes any reference to Jersey Central Power and Light. If there are any preconceived notions or conceptions or misconceptions which they put in a report, I contend it is not binding on the parties respondent and in no way fixes the status of the Jersey Central Power and

Light Company. We all know how these reports are prepared. I have seen many of them, and I have seen many misstatements of conclusions. I don't know that there has been a misstatement of fact; but they are put in for an entirely different purpose. This report is not made to fix the status of anybody and should not be admitted in evidence to establish it.

MR. McALLISTER: Of course, Mr. Examiner, that is argument. What is stated as facts from their records as a result of this operation and reported to this Commission under oath certainly is entitled to credence and consideration over an objection based upon surmise and generalities which have no real basis or foundation as an objection to particular reports which are filed here with the Commission in response to the requirements of the Commission that these particular matters be kept as records currently. And those records filed with the Commission show the results of operations during each current year. They are akin to book records made at the time the transactions took place. They are not compiled at the end of a year from a survey of the records but they are daily and monthly records that are kept. The requirements are that they be shown by months, and so on. When they are kept up in that shape, kept currently and maintained as the operating records of the company, they have a basis for their reports to the State Commissions, they have a basis for their reports to the Federal Power Commission, and they have always been relied upon not only by this Commission but by other Commissions.

When they are kept in accordance with the regulations of and as required by orders of the Commission, an objection that says they are purely hearsay fails to give consideration to the nature of the orders and

reports and the purpose of them, and the consideration which has been given to them by the Commission and by the Courts.

EXAMINER SPENCER: Mr. McAllister, let me ask you if you are going to offer any further reports during the course of the hearing and, if so, whether you know what those reports will be.

MR. McALLISTER: I cannot tell you at this time, Mr. Examiner, whether I shall offer any more reports or not. We expect to do so, Mr. Examiner, but at this time I cannot identify them.

EXAMINER SPENCER: The objection is overruled. Let it be admitted by reference.

MR. PAXSON: An exception, please.

EXAMINER SPENCER: An exception is noted for the Jersey Central Power and Light Company and the New Jersey Power and Light Company.

(The document above referred to was received in evidence by reference.)

THE WITNESS: On December 7, 1937, between five and six P. M. this company experienced its annual system peak.

BY MR. PAXSON:

Q. Which company?

A. Public Service Electric & Gas Company.

BY MR. McALLISTER:

Q. Mr. Grimsley, the statement you just made is a fact reported or shown in that report, isn't it?

A. Absolutely.

Q. On those pages to which you made reference?

A. That is correct.

On December 7, 1937, between 5 and 6 P. M. this

company experienced its annual system peak. This peak amounted to 551,900 kilowatts and included the power demand of its own ultimate consumers, deliveries to small municipal systems for resale and approximately 100 kilowatts supplied to Jersey Central Power and Light Company at Wrightstown and Lisbon.

Q. Those facts which you just stated are also shown on these pages?

A. If not, it is in the other exhibits. It will take me a little time to look for it.

The data that I now propose to use are shown on page 22 of this report.

Q. That is shown on page 22 of the report, you say?

A. That is correct—which I am going to use now.

Q. Will you please proceed, Mr. Grimsley?

A. This peak amounted to 551,900 kilowatts and included the power demand of its own ultimate consumers, deliveries to small municipal systems for resale and approximately 100 kilowatts supplied to Jersey Central Power and Light Company at Wrightstown and Lisbon.

The plant capability of this company is 684,500 kilowatts and its reserve requirements as a member of the pool are 44,000 kilowatts spinning reserve and 24,000 kilowatts cold reserve, or a total reserve capacity of 68,000 kilowatts. It appears, therefore, that this company had available in its own plants a generating capacity in excess of its annual system peak in 1937 plus the required reserves. Actually the annual system peak of Public Service Electric and Gas Company was supplied by 471,000 kilowatts generated in its own plants, 32,000 kilowatts supplied by Philadelphia Electric Company, 33,000 kilowatts by Pennsylvania Power and Light Company, 9,000 kilowatts supplied by Jersey Central Power and Light Company from its South Amboy plant, 2,000 kilowatts supplied by Staten Island Edison Corporation, and 5,000 kilowatts by other utilities. For economic and operating reasons Pub-

lic Service Electric and Gas Company was receiving a total of 80,000 kilowatts over its interconnections with other utilities at the time of its system peak. The delivery of 9,000 kilowatts by Jersey Central Power and Light Company to Mechanic Street at that time has had a distinct effect on the amount of energy which Public Service Electric and Gas Company was obtaining from Pennsylvania and New York.

BY MR. PAXSON:

Q. Is that shown in the reports, that it had a distinct effect, or are you giving your opinion?

A. I think that is a matter of clear common understanding.

Q. It is your opinion? I want to know whether you are giving an opinion or facts.

BY MR. McALLISTER:

Q. The statement, Mr. Grimsley, is based upon your conclusion reached from a consideration of the facts which you stated previously? Is that correct?

A. Yes.

Q. And those facts which you have just stated for the record are facts which are reported to the Commission in this annual report of the Public Service Electric and Gas Company to which you referred?

A. That is correct.

Q. And your conclusions are your conclusions as an engineer based upon your knowledge of these conditions and the basic data and facts which are reported to the Commission by these reports which we have introduced in this case, pages 28-A and 28-B, to which you made reference, and page 22 of that report?

A. That is correct.

Q. Are these inter-connections which you have been describing those interconnections shown on Exhibit No. 1?

A. They are.

Q. Will you please describe the nature of this system which you have been discussing?

A. To summarize, the physical interconnections, the contractual relations and the interchanges of power between the several utilities operating in the areas shown on Exhibit No. 1, together with the relative location of their service areas, transmission lines, power plants and substations, make Jersey Central Power and Light Company an integral engineering and economic part of the large and extensive system furnishing electric service in New Jersey and parts of the adjoining states. The several companies composing this system exist as separate corporate entities.

In the distribution of energy to the ultimate consumers and with regard to many other matters they are independent of each other. But in the operation of their power plants and transmission lines and in the amounts, time and location of their power interchanges they are most closely interrelated. These conditions govern the interchange of power between Jersey Central Power and Light Company and the utilities with which it is interconnected. All the energy which Jersey Central Power and Light Company delivers to or receives from other utilities exercises a distinct influence over the flow of energy across the boundaries of New Jersey. Some of this energy is actually transferred across state lines before it reaches the ultimate consumers.

Q. Have you made a study of the physical layout and characteristics of the Mechanic Street Substation?

A. I have.

Q. Located at Perth Amboy and belonging to the property of the Public Service Electric & Gas Company?

A. That is correct.

Q. Did you examine that substation in detail and in person?

A. I did, on two or more occasions.

Q. Did you prepare or have prepared a diagram of the Mechanic Street Substation?

A. I did.

Q. Is the exhibit which I have just handed to you the diagram showing the facilities of that substation?

A. It is.

BY EXAMINER SPENCER:

Q. Which substation is that?

A. Mechanic Street Substation of Public Service Electric and Gas Company at Perth Amboy.

BY MR. McALLISTER:

Q. Mr. Grimsley, was this exhibit prepared from information which you obtained in the field or what was the source of the information upon which you relied in the preparation of this exhibit?

A. We had several drawings of this substation and from time to time there were changes made, and we took a copy like this from their system report, form 64, for 1937, together with such other drawings as had been furnished from time to time, and went to the substation and checked up with two engineers from the Public Service Company and found this to be correct; and it is what is known as a one line diagram.

Q. What do you mean by a one line diagram?

A. Instead of a three-way circuit having three circuits there is one line to show, as here. The bus here is made of three ducts reduced to one line. It simplifies the diagram.

MR. McALLISTER: I offer the exhibit showing the layout at Mechanic Street Substation as Commission's Exhibit No. 8 and I ask that it be received in evidence.

MR. PAXSON: No objection.

EXAMINER SPENCER: It will be received and marked Commission's Exhibit No. 8.

(*The document above referred to was received in evidence and marked Commission's Exhibit No. 8.*)

(BY MR. McALLISTER):

Q. Mr. Grimsley, will you describe the relative position of the Mechanic Street Substation to the Public Service Electric and Gas Company system and the various transmission lines entering that substation?

A. Mechanic Street substation is located in the City of Perth Amboy, New Jersey and serves as a source of power for the electric load in and around the city. The substation is connected by a 26.4 kv. line with the South Amboy power plant of Jersey Central Power and Light Company.

Over this line Jersey Central delivered to Public Service Electric and Gas Company 55 million kilowatt hours in 1937.

The Mechanic Street Substation is also connected by a 26.4 line with the Atlantic Substation of Staten Island Edison Corporation. Over this line some 3 million kilowatt hours were delivered to Staten Island, and nearly the same amount received from Staten Island.

Q. During what year was that?

A. 1937.

Q. Will you proceed, please?

A. By other 26.4 kv. lines the Mechanic Street Substation is connected with the Carteret, Keasby and Metuchen substations. In the Mechanic Street Substation all these lines are connected to a 26.4 bus through an appropriate switching and controlling equipment.

Directly by this bus is served one of the major electric customers in the area, the General Cable Corporation. Other customers are served from a 4 kv. bus which is

connected through two banks of transformers to the main bus of the station.

Q. When you refer to other customers there do you have reference to other local customers?

A. That is correct.

Q. Mr. Grimsley, have you prepared a diagram showing relative the locations of the various substations to which you have just referred which are connected with the Mechanic Street Substation?

A. I have.

Q. Is that the diagram which I have just handed to you which you have identified?

A. It is.

Q. What was the source of the information from which you prepared this diagram?

A. It was taken from the records of the Commission which were supplied by the Public Service Electric and Gas Corporation.

Q. When you say reports and records do you have reference to the maps, diagrams and reports as contained in their annual reports?

A. That is correct.

MR. McALLISTER: Mr. Examiner, I offer the diagram in evidence as Commission's Exhibit No. 9.

EXAMINER SPENCER: Is there any objection?

MR. PAXSON: No objection.

EXAMINER SPENCER: It will be received in evidence and marked Commission's Exhibit No. 9.

(The document above referred to was received in evidence and marked Commission's Exhibit No. 9.)

BY MR. McALLISTER:

Q. Mr. Grimsley, have you also had prepared a map

showing the northern zone of the Public Service Electric and Gas Company?

A. Yes, sir.

Q. What was the source of the information from which you prepared that exhibit?

A. It was prepared from the records filed with this Commission by the Public Service Electric and Gas Company as contained in their report.

Q. As contained in their annual report?

A. Yes, sir.

MR. McALLISTER: Mr. Examiner, I offer the exhibit in evidence as Commission's Exhibit No. 10 and ask that it be received.

EXAMINER SPENCER: Is there any objection?

MR. PAXSON: No objection.

EXAMINER SPENCER: It will be received in evidence and will be marked Commission's Exhibit No. 10.

(The document above referred to was received in evidence and marked Commission's Exhibit No. 10.)

BY MR. McALLISTER:

Q. Mr. Grimsley, by reference to Commission's Exhibit No. 9 will you please describe the Central Division of Public Service Electric and Gas Company, including the operation of the Mechanic Street Substation?

A. The Central Division consists of the Metuchen, Carteret, Tremley, Linden, Rahway, Keasby and Mechanic Street Substations interconnected among themselves by 26.4 kv. lines. Each of these substations receives its power supply under normal operating conditions from either the Mechanic Street substation, supplied in turn by Jersey Central, or the Metuchen substation, or both.

The Metuchen substation is connected through transformers and appropriate switching equipment to a 132 kv. line interconnecting the Richmond plant of the Philadelphia Electric Company and the Roseland Substation, and the Essex Power Plant of the Public Service Electric and Gas Company.

Q. Mr. Grimsley, will you please state the source of the information which you related in answer to the last question?

A. It is taken from the power system statement for the year ended December 31, 1937.

Q. As filed with the Federal Power Commission on July 21, 1938?

A. That is correct.

Q. Mr. Grimsley, you stated that you had examined in detail the layout at the Mechanic Street Substation at Perth Amboy, New Jersey?

A. Yes, sir.

Q. Did you at the same time study the log sheet showing the instrument readings at certain intervals as reported in the substation?

A. I did.

Q. Or as kept in that substation?

A. Yes, sir.

Q. What do those log sheets show?

MR. PAXSON: Just a moment, please. For what period of time and when?

THE WITNESS: I was just going to give you that, Mr. Paxson.

MR. PAXSON: In other words, I do not want any generalization about log sheets for four or five years which represent a conclusion which might be sound or which might be subject to question.

THE WITNESS: The period we studied in this connection was January, 1937 to September, 1938.

MR. PAXSON: If the Commission please, I object to any testimony as to anything which may have occurred subsequent to March 14, 1938, which is the date fixed by this Commission in its investigation, which is to determine whether or not a certain transaction for the acquisition of certain shares of stock of Jersey Central Power & Light by the New Jersey Power and Light Company was proper or improper. I submit nothing that has happened subsequent to March 14, 1938 has any relevancy in this proceeding to determine the validity or invalidity of that transaction.

MR. McALLISTER: The course of events which exist over a period of time leading up to and continuing after a particular transaction are pertinent as indicating the condition which existed at the time.

There is no exception that I know of to that established rule in showing what is likely to be the condition at a particular time when there is no reporting device to set forth instantaneously what was the condition at the instant that the transaction might have been completed. In other words, if you give full force and effect to what Mr. Paxson has to say we must determine when this transfer of stock took place and at that very time then it must be said that there were energy transactions of a character which would make the Jersey Central Power and Light Company a utility amenable to the jurisdiction of this Commission. In other words, it results in an absurd result when you attempt to give force and effect to the principle that he has undertaken to establish as a basis for an objection to this line of testimony.

EXAMINER SPENCER: The Examiner recognizes the fact that any transaction subsequent to the transfer of the stock does not directly bear upon the

question of public utility status of this corporation. Nevertheless, transactions subsequent to that period, as well as those prior to that period, I feel would have a bearing upon the question.

I shall overrule the objection. The witness may answer the question. The respondent may have an exception.

You may proceed, Mr. Grimsley.

BY MR. McALLISTER:

Q. Mr. Grimsley, I think the question propounded to you was: what did those log sheets show? I am referring to the log sheets which you said you examined at the Mechanic Street Substation, the log sheets of operations at Mechanic Street Substation.

MR. PAXSON: Do you have the log sheets?

That is a long period of time—to remember every day. I don't think any man connected with Public Service could tell from memory, or any man from any of these other companies. I don't want conclusions as to what they show.

MR. McALLISTER: Mr. Paxson, if you will just bear with us for a moment I will say we are not relying upon any memory.

MR. PAXSON: All right. But I just don't like general questioning to bring out general conclusions.

THE WITNESS: These log sheets show the flow of electric power over the several lines mentioned previously. This flow is recorded in kilowatts for some of the lines and in k. v. a. or amperes for the others. Records are taken every half-hour, except for the period from 12 midnight to 6:00 a. m., during which time the readings are taken once each hour.

BY MR. McALLISTER:

Q. By that, Mr. Grimsley, you mean the log sheets recording these readings were taken during that period every half-hour, and during the period from midnight until six o'clock in the morning the log sheets record readings taken every hour?

A. Well, it is the duty of the substation operators to take from these instruments a record on these log sheets, what the log sheets read. It is a record, therefore, of the substation operation.

Q. From the log sheets which you examined, Mr. Grimsley, did you extract information showing the flow of energy through Mechanic Street Substation?

A. Yes, sir. I have copied from the log sheets 150 different readings from among those taken during the last 14 months. For each of these readings there was recorded an inflow of energy from Jersey Central Power and Light Company and a simultaneous outflow of energy to Staten Island Edison Corporation.

Q. Mr. Grimsley, I hand you an exhibit and ask you to examine it and state whether that is the statement recording the instrument readings which you took from the log sheets at the Mechanic Street substation and to which you just referred.

A. This is the copy of the readings taken from the log sheets.

Q. Was this statement prepared by you and under your direction while you were making the investigation of the Mechanic Street Substation?

A. In part by me but principally by two assistants under my supervision and direction.

MR. McALLISTER: Mr. Examiner, I offer in evidence the statement identified by the witness as Commission's Exhibit No. 11.

MR. PAXSON: I would like to look at it for just a moment.

EXAMINER SPENCER: You may do so.

MR. PAXSON: No objection, except the readings subsequent to March 14, 1938, so far as they are concerned, and subject to checking for accuracy.

EXAMINER SPENCER: The statement will be received in evidence as Commission's Exhibit No. 11.

(The document above referred to was received in evidence and marked Commission's Exhibit No. 11.)

BY MR. McALLISTER:

Q. Mr. Grimsley, what use have you made of the information shown on Exhibit No. 11 in determining the flow of energy through the Mechanic Street Substation?

A. I first reduced all original instrument readings to a uniform basis of kilowatts, then determined the excess of the power supplied from Jersey Central to Mechanic Street Substation over that delivered to the 4 kv. bus, the General Cable Corporation and the Staten Island Edison Corporation. For each of the 150 readings there was found to be an appreciable excess of power.

Q. Mr. Grimsley, have you prepared an exhibit to show the results which you have indicated, as a result of your study?

A. I have.

Q. I show you an exhibit, Mr. Grimsley, and ask you to state whether that is the compilation to which you refer.

A. It is.

MR. McALLISTER: Mr. Examiner, I offer the statement which has just been identified by the witness as Commission's Exhibit No. 12.

I am perfectly willing to wait until they have had an opportunity to check it.

MR. PAXSON: No objection, except as to the facts shown subsequent to March 14, 1938 and subject to checking as to accuracy.

EXAMINER SPENCER: The statement will be received in evidence and will be marked Commission's Exhibit No. 12.

(The document above referred to was received in evidence and marked Commission's Exhibit No. 12.)

BY MR. McALLISTER:

Q. Mr. Grimsley, will you please explain Commission's Exhibit No. 12 briefly to show just what you have done in relating the information shown on Exhibit No. 11 to that information which you report on Exhibit No. 12?

A. The basic information appears on Exhibit No. 11. Then it is arranged here by dates, hours and—

Q. To which exhibit are you referring now?

A. I am now referring to Exhibit No. 12. It is arranged here by dates, hours, and the amount of power received from Jersey Central in the next column, which is supported by the log sheet. The next column to the right is the local load, and that is the load that is supplied from the 4 k. v. bus. That on the log sheets is recorded as k. v. a. and on Exhibit No. 12 it is converted to kilowatts.

In the next column to the right the General Cable load is shown, which the log sheets reflect as ammeter readings. They, in turn, were converted to kilowatts.

The next column to the right, the Staten Island Edison Corporation, is recorded in kilowatts.

The total of these three columns represents the total load supplied by the Mechanic Street Station in kilowatts.

This total is then subtracted from the amount of power received from Jersey Central for the period.

The next and last column to the right shows surplus power at Mechanic Street station expressed in kilowatts. That was carried out through the 150 tabulations shown in Exhibit No. 12.

Q. The basic readings shown on Exhibit No. 12 are the same readings which are shown on Exhibit No. 11?

A. That is correct.

Q. The total information on Exhibit No. 11 was obtained by you or under your direction directly from the log sheets at Mechanic Street substation?

A. Well, they were maintained in an office located near the substation. They were the company records of the substation.

Q. They were the Mechanic Street substation records as kept by officials of the company?

A. That is correct.

Q. As I understand your testimony in relation to Exhibit No. 12, you have said that having related the various instrument readings to kilowatts you determined the total local load at the Mechanic Street substation, that is, the local load through the transformer bank, the load going to the General Cable and the load going to Staten Island, Edison Corporation, and having totaled those amounts, as the local load at Mechanic Street you arrived at the surplus power shown in the last column on Exhibit No. 12, which is the difference between the energy coming in from Jersey Central Power and Light Company and the local load as shown on Exhibit No. 12?

A. That is correct.

Q. And that computation or calculation was carried out for each of the 150 readings which you report on Exhibits Nos. 11 and 12?

A. That is correct.

EXAMINER SPENCER: Mr. McAllister, will

you be able to finish with this witness this afternoon?

MR. McALLISTER: No, Mr. Examiner; I will not be able to finish with this witness. It will require probably another half-day.

EXAMINER SPENCER: Have you other witnesses?

MR. McALLISTER: I have, Mr. Examiner. But I cannot put them on just at this point.

EXAMINER SPENCER: I assume you will have a number of witnesses, Mr. Paxson?

MR. PAXSON: We will have a few.

EXAMINER SPENCER: At this time we will adjourn until ten o'clock tomorrow morning.

(Whereupon, at 4:30 o'clock p. m., an adjournment was taken until Wednesday, September 28, 1938, at 10:00 o'clock a. m.)

Room 1201, Hurley Wright Bldg., Washington, D. C., Wednesday, September 28, 1938.

The above-entitled matter came on for further hearing, pursuant to adjournment, at 10:00 o'clock a. m.

Before:

Carroll B. Spencer, Trial Examiner.

Appearances:

As heretofore noted.

PROCEEDINGS

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

You may proceed, Mr. McAlister.

A. H. GRIMSLEY,

resumed the witness stand and, having been previously duly sworn, testified on behalf of the Commission as follows:

Direct Examination (Resumed)

BY MR. McALLISTER:

Q. Mr. Grimsley, at the time we adjourned yesterday afternoon you had just completed the testimony regarding the exhibits numbered 11 and 12. Will you please refer to Exhibit No. 12?

A. Yes; I have it.

Q. I call your attention to the last column on the right-hand side of that exhibit and I will ask you to state briefly, for the record, just what that column shows so that we can tie it in with your prior testimony before we proceed further.

A. It represents that amount of energy remaining after deducting from that received from Jersey Central Power and Light the Mechanic Street Substation requirements.

Q. In other words, Mr. Grimsley, that represents the surplus?

A. Energy over and above the local requirements for that period.

Q. Considering the energy coming to Mechanic Street Substation from Jersey Central Power and Light Company that is the total available at that point for the satisfaction of this load at Mechanic Street?

A. That is correct.

Q. Now, Mr. Grimsley, what becomes of this excess or surplus in the last column to the right on Exhibit No.

12? I mean the surplus power to which you have just referred.

A. This surplus energy flows out and away from Mechanic Street Substation over the several lines connected to it to supply other loads in the Central Division of the Public Service Electric and Gas Company.

Q. Those lines to which you have reference are those lines which you show in Exhibit No. 9, are they not?

A. Well, it is all of the lines shown on Exhibit No. 9 excepting that one leading to Atlantic Staten Island Substation, because that has already been taken into account, that is, delivery. So that flows out over the other remaining four lines.

Q. Shown on Exhibit No. 9?

A. Shown on Exhibit No. 9. I might designate that by numbers, if you like.

Q. You might indicate that, Mr. Grimsley. Then there can be no question about it.

A. Out over line designated B-184, line N-196, line A-183, and line Q-199.

Q. Have you made any determination to ascertain the quantity and direction of the flow of energy away from Mechanic Street over each of the lines connecting the substation with the other substations in the Central Division of the Public Service Electric and Gas Company?

A. Yes; I have.

Q. Will you please describe in what manner you made that determination?

A. I have taken 24 readings from among the 150 shown on Exhibit No. 11 and obtained for the same days and hours all of the substation loads in the Central Division.

Q. That is the Central Division of the Public Service Electric and Gas Company?

A. That is correct. That is the only Central Division I have referred to so far and will hereafter refer to, that

is, of the Public Service Electric and Gas Company.

Q. Mr. Grimsley, I show you an exhibit and I will ask you if that is the exhibit which you have prepared showing the 24 readings to which you have just referred?

A. This is the one; yes, sir.

Q. Now, Mr. Grimsley, by reference to the exhibit which you have before you will you please indicate the source of the information which you record on that statement?

A. The information, up to and including the column under the caption "Energy Delivered to Staten Island Edison Corporation," is taken from Exhibit No. 11.

Q. Before you go any further, Mr. Grimsley, you say up to and including that column. What do you mean?

A. I mean reading from left to right.

Q. Reading the headings there of the month, day and hour, energy obtained from Jersey Central Power and Light Company; the next column, Mechanic Street Substation, local load, and general cable company load, and that following column, energy delivered to Staten Island Edison Corporation—that much of the information which you show is taken from Exhibit No. 11?

A. That is correct.

Q. Now, with respect to the balance of the information on that exhibit, will you please state the source of that information?

A. That information was supplied by the Public Service Electric and Gas Company to me in Newark. We were there studying the situation.

BY MR. PAXSON:

Q. Just a moment, please. Did you study the records yourself? Were the records supplied, and did you get these data from the records or did they just send you this?

MR. McALLISTER: If you will just let the finish with the witness it will appear how it was obtained

and you will have ample opportunity for cross-examination to get further details regarding it.

MR. PAXSON: I do not like to interfere with the examination of a witness, but sometimes in the interest of clarity it is helpful. I may or may not have some objection to the introduction of this exhibit. I do that only to see whether I do have any objection. If you bring that out it is all right with me.

I presume you are going to offer that, are you not?

MR. McALLISTER: I am.

THE WITNESS: This statement was handed to me by the man in charge of such records in that department, a copy of which I have here.

BY MR. McALLISTER:

Q. In other words, Mr. Grimsley, the responsible officials of the Public Service Electric and Gas Company furnished the inforination to you which you showed here?

A. Yes, sir.

Q. Now, will you please state for the record just what request was made on the Public Service Electric and Gas Company and how they came to furnish this information here? In other words, you made a request on them for this information with respect to 24 readings which you show on this statement? Isn't that true?

A. That is true. I requested from them all other loads supplied to the Central Division for these time periods, showing the name of the substation and the record of the load at each substation for the period.

Q. And you furnished them the information contained in the first two or three columns, that is, the month, day, and hour, as shown on the lefthand side of this statement, and you requested that they for those periods or those

times supply you the loads at these other designated points which you have indicated to them was necessary or desirable for your use in making this study?

A. That is correct.

MR. McALLISTER: Mr. Examiner, at this time I wish to offer the statement referred to and identified by the witness merely for the purpose of identification, and I will ask that it be marked. When I have had an opportunity through another witness to establish the correctness and the verity of the additional information on this exhibit, I will offer it in evidence at that time.

EXAMINER SPENCER: It may be marked for identification.

MR. McALLISTER: I ask that it be marked for identification as Commission's Exhibit No. 13.

EXAMINER SPENCER: It will be marked Commission's Exhibit No. 13 for identification.

(The document above referred to was marked for identification Commission's Exhibit No. 13.)

BY MR. McALLISTER:

Q. In making the determination to ascertain the quantity and flow of energy from Mechanic Street in connection with this surplus to which you were referring, Mr. Grimsley, what other information did you obtain to enable you to make that determination?

A. I also obtained from the Public Service Electric and Gas Company the power factors of the loads under ordinary heavy load conditions and the impedances of the lines connecting the several substations.

Q. When you refer to the several substations you are referring to those substations shown on Exhibit 9, are you not?

A. That is correct.

Q. I mean shown on Exhibit No. 9 except the substation shown as Mechanic Street Substation.

A. That is correct.

Q. Now, Mr. Grimsley, I show you a statement which is described as power factors for substations, Central Division, at time of ordinary heavy load condition, and I will ask you if that is the information which you obtained from Public Service Electric and Gas Company to which you have just referred?

A. These are the data. This is a copy of the data we secured, that is, with reference to the power factor.

MR. McALLISTER: Mr. Examiner, I will ask that the statement identified by the witness be marked for identification and indicated as Commission's Exhibit No. 14.

EXAMINER SPENCER: Let the statement be marked for identification as Commission's Exhibit No. 14.

(The document above referred to was marked for identification Commission's Exhibit No. 14.)

BY MR. McALLISTER:

Q. Mr. Grimsley, I show you a further statement, which is headed "Line Impedances in Central Division," and I will ask you if that is the information to which you have just referred in your last statement as having been obtained from the Public Service Electric and Gas Company?

A. This is a typed copy of the information furnished and it has been checked with the original.

MR. McALLISTER: Likewise, Mr. Examiner, with respect to that exhibit, I ask that it be marked for identification as Commission's Exhibit No. 15.

EXAMINER SPENCER: It may be marked for identification Commission's Exhibit No. 15.

(The document above referred to was marked for identification Commission's Exhibit No. 15.)

BY MR. McALLISTER:

Q. Mr. Grimsley, will you please proceed with an explanation of the methods employed by you in determining the quantity and direction of flow in connection with the excess energy shown on Exhibit No. 12, to which you have been referring?

MR. PAXSON: Are you referring to Exhibit No. 12 or Exhibit No. 13, Mr. McAllister?

MR. McALLISTER: Exhibit No. 12.

MR. PAXSON: Not one of these exhibits offered this morning?

MR. McALLISTER: That is the exhibit that is in evidence.

THE WITNESS: Employing well known methods commonly used by engineers in calculating the flow of energy in each branch of a network, I have determined that for each of these 24 cases the excess power received from Jersey Central Power and Light Company at Mechanic Street Substation over and above the local requirements flowed away from this substation in all lines connected to it.

BY MR. McALLISTER:

Q. Mr. Grimsley, have you prepared a statement showing the results of your determination as described by you?

A. I have.

Q. Is that the statement which I have just handed to you which sets forth that determination?

A. That is correct.

MR. McALLISTER: Mr. Examiner, I ask that this document also be marked for identification, as Commission's Exhibit No. 16.

EXAMINER SPENCER: Let it be so marked as Commission's Exhibit No. 16 for identification.

(The document above referred to was marked for identification Commission's Exhibit No. 16.)

BY MR. McALLISTER:

Q. Mr. Grimsley, will you please refer to the exhibit which has just been identified as Commission's Exhibit No. 16, and state for the record what it shows?

A. It shows the amount of surplus energy for the period that flowed to each of the four respective lines shown on Exhibit No. 9.

Q. In what direction?

A. Out and away from Mechanic Street Substation.

Q. Will you please indicate on the exhibit where that information appears, Mr. Grimsley?

A. "Disposition of remainder calculated transmitted to Metuchen, Carteret and Keasby." That is the caption under which the amounts are shown in the columns as transmitted over each line.

Q. What columns?

A. Columns 6, 7 and 8.

Q. And Column 9 shows what?

A. That there was transmitted or flowed out and away from Mechanic Street Substation this balance that is shown on Exhibit No. 12.

Q. That is the total of Columns 6, 7 and 8, is it not?

A. That is correct.

Q. In other words, do you show in Column 3 the quantity of power supplied by Jersey Central Power and Light Company at the time indicated in Columns 1 and 2? Is that correct?

A. That is correct.

Q. And in Column 4 you show the local load at Mechanic Street Substation?

A. That is correct,—including the Staten Island Edison Corporation load.

Q. In Column 5 you show the difference between the quantity received from Jersey Central Power and Light Company and the local load at Mechanic Street Substation, including the quantity going to Staten Island Edison Corporation?

A. That is correct.

Q. The difference between those two quantities is shown in Column 5?

A. That is correct.

Q. Then, in Columns 6, 7 and 8 you show the individual loads at Metuchen, Carteret—I mean the loads going to Metuchen, Carteret and Keasby?

A. That is correct.

Q. And you state those individual loads in Columns 6, 7 and 8?

A. That is correct.

Q. And the total of the three in Column 9?

A. Yes, sir.

Q. That total which you show going out over the various lines to the load at Metuchen, Carteret and Keasby is the total surplus remaining at Mechanic Street Substation?

A. Yes.

Q. It is the excess at Mechanic Street Substation remaining over and above the local requirements at that point taken out of the total received from the Jersey Central Power and Light Company?

A. That is correct.

Q. Putting it in another way, Mr. Grimsley, what you show on this exhibit is that a certain given quantity comes from Jersey Central Power and Light Company?

A. That is correct.

Q. You then satisfy the local needs at Mechanic Street Substation, including the quantity being delivered to Staten Island Edison Corporation, out of that total received from Jersey Central Power and Light Company?

A. That is correct.

Q. And then the balance remaining by your determination and you show the quantity going out over the network on the available lines which you have identified on Exhibit No. 9 as lines B-184, N-196, A-183, and Q-199?

A. That is correct.

Q. And they are those quantities you show in the three columns, headed 6, 7 and 8?

A. That is correct.

Q. And that shows the energy is flowing out of and away from Mechanic Street on all of those four lines?

A. That is true.

Q. Mr. Grimsley, what do you show in the last column on Exhibit No. 16?

A. That was the total requirement in the network studied known as the Central Divisions, which data were furnished by the Public Service Electric and Gas Company.

Q. Mr. Grimsley, when you say the information shown in the last column on Exhibit No. 16 was information furnished by the Public Service Electric and Gas Company, what you meant was that taking into consideration the load at Mechanic Street Substation as shown on Exhibit No. 13, and considering the loads which were furnished by the Public Service Electric and Gas Company for the Carteret Substation, Keasby, Rahway, Linden, Trenley, and Metuchen, also shown on Exhibit No. 13, the total of those loads gives you the total of the requirement which you show in Column 10 on Exhibit No. 16?

A. That is correct. In other words, we took the data

from the log sheets for the Mechanic Street load and other loads referred to were supplied by the Public Service Electric and Gas Company. The sum of those represents the total shown in Column 10.

Q. What conclusions do you arrive at from a consideration of the determination which you made through the computations on Exhibit No. 16, Mr. Grimsley?

A. This determination precludes the possibility of any power other than that supplied by the Jersey Central Power and Light Company to Mechanic Street Substation being transmitted to the Staten Island Edison Corporation at the time shown on the exhibit.

Q. In other words, Mr. Grimsley, with energy flowing out over all of the lines which connect Mechanic Street Substation with another source of supply there can be no incoming flow of energy at that time?

A. That is correct. That is very definitely established there.

Q. What method was employed in selecting the 24 cases which you show on Exhibit No. 16?

A. These were selected to represent typical conditions for various seasons of the year and various hours of the day and are in no way distinct from most of the other 150 readings shown on Exhibit No. 11.

Q. And Exhibit No. 12 also? Is that correct?

A. Yes, sir.

Q. Will you please proceed, Mr. Grimsley?

A. At the time of selecting the 24 cases we had no information in regard to the load in the Central Division except that of Mechanic Street Substation. These data were secured later.

Q. By that you mean, do you not, Mr. Grimsley, that no predetermination was made as to the possible answer which would be obtained when those loads were had?

A. That is correct. We took the 24 readings from the 150; we selected them, and then we asked for the

load data later. We brought that back and made those computations here. We did not know what the answer would be.

Q. The 24 cases which you selected are included among the 150 shown on Exhibits Nos. 11 and 12?

A. That is right. They were taken from them.

Q. And the 24 cases to which you referred are also shown on Exhibits 13 and 16? The same identical readings are shown on Exhibits 13 and 16, are they not? When I say readings, I mean the readings for the certain month, day and hour as shown on Exhibit No. 13 are those readings as shown on Exhibit No. 16?

A. That is correct.

Q. Mr. Grimsley, at the outset did you select just these 24 cases or did you select others in addition which were later eliminated?

A. I would have to check the original data. I do not believe we asked for any others than these 24.

Q. Will you please check it, Mr. Grimsley? And when you have done that, will you please state for the record whether or not you asked for any additional beyond the 24?

A. That is correct. These 24 cases were the only ones on which we asked for the load in the network outside of Mechanic Street, which we had calculated.

Q. Mr. Grimsley, on Exhibit No. 16 there is a typewritten note opposite certain readings at the top of the statement there, and opposite the reading for January 26, 1937. Will you please explain the significance of that note and the reason for its inclusion on the exhibit?

A. It is very obvious there that the total network requirement was less for the given periods than that which was received from the Jersey Central Power and Light Company for the same periods. So there was a balance of energy remaining from that which was received from Jersey Central Power and Light Company and the needs

or requirements for the entire network there studied and under consideration.

Q. In other words, Mr. Grimsley, at 8:30 on January 26, 1937, you show the power inflow from Jersey Central Power and Light Company at Mechanic Street Substation as being 19,000 kilowatts?

A. That is correct. I might add there that we found many cases where the amount received was in excess of that.

Q. When you say in excess, Mr. Grimsley, you mean the amount flowing to Mechanic Street Substation from Jersey Central Power and Light Company?

A. That is correct.

Q. That power received from Jersey Central Power and Light Company would be utilized in supplying the load at Mechanic Street Substation which you show at 5470 kilowatts in Column 4?

A. That is correct.

Q. And the total remaining available to supply the balance of the network would then be 13,530 kilowatts, is that correct?

A. That is the remainder left for the load in the network.

Q. But the total in the network which you show in Column 10 includes both the load at Mechanic Street Substation and the load at the outlying substations which are shown in Exhibit No. 9?

A. That is correct.

Q. What becomes of the excess energy received from Jersey Central Power and Light Company at Mechanic Street Substation over and above the requirements at all of these substations which you show on Exhibit No. 9?

A. Well, it is very obvious it would move out over the main voltage lines, namely, 26.4 from Metuchen to other load areas.

Q. Would it be a proper statement to say that the in-

coming flow of energy from the Jersey Central Power and Light Company under these conditions which you show by the statement on Exhibit No. 16 supplied all of the requirements in that district, and more besides?

A. That is correct.

Q. What would be the reasonable conclusions from such a condition in relation to the origin of energy flowing from Mechanic Street Substation to Staten Island Edison Corporation at those times?

A. Unquestionably it could not come from any other place than the South Amboy Plant of Jersey Central Power and Light. It must necessarily come from there. It came from there, unquestionably.

Q. And that energy would flow over what facilities of Jersey Central Power and Light Company in reaching the Mechanic Street Substation?

A. There is an overhead transmission line leading direct from the South Amboy plant, two circuits, that is, two three-phase circuits, to the Raritan River south bank, and there it is taken by the Public Service Electric and Gas Company, through two submarine cables under the river over to Mechanic Street Substation. It is received there on the Mechanic Street Substation bus, and from there out over the line from the bus to Atlantic Substation of Staten Island Edison Corporation. It is a direct path.

MR. PAXSON: I move the last statement of the witness be stricken—a direct path. That it is a direct path is a conclusion. He has shown a bus bar; he has shown different circuits leading out. That it is a direct path is a conclusion only.

THE WITNESS: I call it.

EXAMINER SPENCER: Based upon the facts he testifies, he has in his opinion as an expert that would be a direct path.

THE WITNESS: That is correct.

BY MR. McALLISTER:

Q. Now, Mr. Grimsley, which of those facilities which you have described are facilities which are owned by Jersey Central Light and Power Company?

A. It is the overhead transmission line carrying two circuits, 26.4 k. v. from the South Amboy plant to the south bank of the Raritan River.

Q. From that point into the Mechanic Street Substation the transmission facilities are owned by whom?

A. Public Service.

Q. Public Service Electric and Gas Company?

A. Yes, sir; by the Public Service Electric and Gas Company.

Q. Mr. Grimsley, what conclusions may be reasonably drawn from your study of the 24 cases to which you have just been referring and with respect to the remaining cases shown on Exhibits 11 and 12?

A. Practically all remaining cases would show the same results. In all exceptions, if there be any exceptions, detailed studies would show definitely that a part of the energy delivered to Staten Island Edison Corporation at those times originated at South Amboy power plant of the Jersey Central Power and Light Company.

Q. Mr. Grimsley, you explained in some detail the circumstances and conditions under which energy flows from the Jersey Central Power and Light Company through Mechanic Street Substation to Staten Island Edison Corporation. Do you find any records showing a flow of energy in the reverse direction, from the Staten Island Edison Corporation to Mechanic Street, at times when simultaneous deliveries were made from Mechanic Street Substation to Jersey Central Power and Light Company?

A. Yes, sir.

Q. Where did you find those records, Mr. Grimsley?

A. At the Mechanic Street Substation.

Q. What was the nature of the records?

A. There on the log sheets.

Q. The readings were information reported on the log sheets maintained in connection with the operation of the Mechanic Street Substation? Is that correct?

A. That is correct.

Q. Mr. Grimsley, I show you a statement and ask you if that is the statement prepared from the records which you obtained relating to the operation of the Mechanic Street Substation?

A. It is.

MR. McALLISTER: Mr. Examiner, I offer in evidence at this time the statement identified by the witness, and I ask that it be received in evidence as Commission's Exhibit No. 17.

EXAMINER SPENCER: Is there any objection?

MR. PAXSON: Yes, Mr. Examiner; I have an objection to the introduction of this statement in evidence, except for two instances. Well, there is no exception at all. All of these instances occurred after March 14, 1938, and, consequently, whatever happened subsequent to that date which might or might not affect the status has nothing to do with this case and is not material. It is incompetent, irrelevant and immaterial.

EXAMINER SPENCER: Mr. McAllister, what bearing do you say this statement has on the case?

MR. McALLISTER: As I said before, Mr. Examiner, in connection with a similar objection, conditions showing a continuous condition of operation is a matter of information indicating a series of circumstances that is of evidentiary value to the Commission in determining what was the condition of operation and flow of energy at sundry and various times over these lines.

MR. PAXSON: If the Commission please, his first instance is April 3rd. He has not shown any continuous series of transactions prior to that date. Conceivably the situation had been changed completely. There is nothing to build up on this. I understand his argument yesterday was that having shown some other condition he wanted to show a chain of circumstances.

EXAMINER SPENCER: Respondent will be given an opportunity to show similar readings for prior dates.

MR. PAXSON: There may not be any. We are not asking for any opportunity to show it. That is his case. We are not conducting his case for him.

EXAMINER SPENCER: Any showing you would make would be for your own interest and not in the interest of Counsel for the Commission, of course.

The objection is overruled.

Let it be admitted over the objection of the attorney for respondent.

MR. PAXSON: I ask an exception.

EXAMINER SPENCER: An exception will be noted.

(The document above referred to was received in evidence and marked Commission's Exhibit No. 17.)

BY MR. McALLISTER:

Q. Mr. Grimsley, what use have you made of the information shown on Exhibit No. 17 in determining the flow of energy through Mechanic Street Substation under these conditions?

MR. PAXSON: Just a moment, please. I want it understood that my objection goes to each and every question put with reference to this exhibit.

EXAMINER SPENCER: All right.

MR. PAXSON: An exception all of the way through. Otherwise I would have to interrupt on each question.

EXAMINER SPENCER: The record will show attorney for respondent objects to each question relating to this particular exhibit; the objection is overruled and an exception is granted.

THE WITNESS: It shows during these periods that in the column under J. C. P. and L. —

BY MR. McALLISTER:

Q. What does that stand for?

A. Jersey Central Power and Light Company.

Q. Will you proceed, please?

A. It shows during these periods under that column energy flowed from Mechanic Street Substation to Jersey Central Power and Light.

In the next column, under "S. I. E. D.," which is Staten Island Edison Corporation, it shows the amount received at Mechanic Street Substation from the Staten Island Edison Corporation.

The next column shows the Mechanic Street Substation local load.

The difference between the local load requirements and that received from Staten Island Edison Corporation was naturally made up from a supply from Metuchen Substation and indicates clearly that a part of the energy that was delivered to Jersey Central Power and Light Company during these periods came from Staten Island Edison Corporation system.

Q. Mr. Grimsley, have you prepared an exhibit showing the inflow and outflow of energy at Mechanic Street Substation under these conditions which prevailed at the times shown on Exhibit No. 17?

A. Yes, sir; I have.

Q. I show you an exhibit, Mr. Grimsley, and I will ask you if that is the statement prepared by you showing substation load and supply at the times also shown on Exhibit No. 17?

A. Yes; that is correct. This shows a little more clearly just what I stated before, that may be concluded from the data shown on Exhibit No. 17.

MR. McALLISTER: Mr. Examiner, I offer in evidence as Commission's Exhibit No. 18 the statement just identified by the witness and ask that it be received in evidence.

MR. PAXSON: That is objected to as incompetent, irrelevant and immaterial. It has to do with alleged transactions all occurring subsequent to March 14, 1938.

EXAMINER SPENCER: The objection is overruled.

Let it be admitted as Commission's Exhibit No. 18.

(The document above referred to was received in evidence and marked Commission's Exhibit No. 18.)

BY MR. McALLISTER:

Q. Mr. Grimsley, will you please explain the conclusion which may be reasonably drawn from Commission's Exhibit No. 18 as indicating a flow of energy from Staten Island Edison Corporation to Mechanic Street Substation?

A. It shows the receipts of energy from Staten Island Edison Corporation in one column.

In the next column it shows that delivered to Jersey Central Power and Light Company for the same period, and in the next column the local load requirements, then the General Cable load.

The sum of the latter two columns is the Mechanic

Street load. It shows the total requirements, and the last column shows the excess load over supply at the Mechanic Street Substation, which obviously would have to be supplied from the Metuchen Substation, and it indicates clearly that a part of this energy delivered to Jersey Central Power and Light Company during the period must necessarily have come from the Staten Island Edison Corporation.

Q. I direct your attention to the eighth line on that statement—

MR. PAXSON: If the Commission please, all of these questions on this exhibit also are objected to by me for the same reason. I do not want to interrupt continuously.

EXAMINER SPENCER: Yes, Mr. Paxson. Let the record show attorney for respondent objects to each question relating to the matters shown by this exhibit. The objection is overruled and an exception is noted.

MR. PAXSON: For the same reason.

BY MR. McALLISTER:

Q. On May 8, 1938, Mr. Grimsley, at 6 o'clock a. m. you show 2,000 kilowatts coming from Staten Island Edison Corporation to Mechanic Street Substation. Is that correct?

A. That is correct.

Q. At the same time, 1,000 kilowatts was being delivered to the line of the Jersey Central Power and Light Company leading out of Mechanic Street Substation?

A. That is correct.

Q. In the next column you show local load, 1230 kilowatts. Is that correct?

A. That is correct.

Q. That is the load that is utilized through the trans-

former banks at the Mechanic Street Substation, is that true?

A. That is true." Then it goes out over the 4 K.V. system.

Q. In the next column you show the load of the general Cable Company as being at that time 730 kilowatts?

A. That is correct.

Q. So the total load on Mechanic Street Substation at that particular time, including the energy flowing to Jersey Central Power and Light Company, was 2960 kilowatts?

A. That is correct.

Q. At the same time you were receiving from Staten Island Edison Corporation 2,000 kilowatts?

A. That is correct.

Q. Which would leave a balance of 960 kilowatts to be supplied from some other source?

A. That is correct.

Q. Does it not mathematically appear that if Jersey Central Power and Light Company is receiving in excess of the total required from outside sources that necessarily as part of the load moving to Jersey Central Power and Light Company must come from Staten Island Edison Corporation?

A. That is correct.

Q. When I said "load" there, Mr. Grimsley, I meant supply.

A. That is correct.

Q. That would not change your answer?

A. No, sir.

Q. It was that consideration of the figures shown on Commission's Exhibit No. 18 which induced you to conclude that part of the energy delivered to Jersey Central Power and Light Company at the time shown on Exhibit No. 18 originated on the facilities of Staten Island Edison Corporation?

A. That is correct.

Q. And that flow of energy out of Mechanic Street Substation to Jersey Central Power and Light Company would necessarily flow over the facilities of Jersey Central Power and Light Company from the south bank of the Raritan River to the substation of the Jersey Central Power and Light Company located at their power plant in South Amboy?

A. That is correct.

Q. In other words, the same facilities would be used in the transfer of energy from Mechanic Street Substation? I mean the same facilities owned by Jersey Central Power and Light Company would be utilized in the transmission of electric energy from Mechanic Street Substation to the substation at South Amboy as would be used in the transfer and transmission of energy in the reverse direction?

A. That is correct.

EXAMINER SPENCER: Gentlemen, at this time we will take a five-minute recess.

(Thereupon a short recess was taken, after which the following occurred:)

EXAMINER SPENCER: The hearing will be resumed. Proceed, Mr. McAllister.

MR. McALLISTER: Mr. Examiner, as the record shows, I have two or three exhibits which have been merely identified and not offered in evidence. I would like to withdraw Mr. Grimsley for the time being in order that I might put on a witness who will enable me to establish the verity of the information contained on the exhibits, which Mr. Grimsley was not able to do, and then I may offer them in evidence.

EXAMINER SPENCER: All right, proceed.

Whereupon

P. B. BASS,

a witness produced by and on behalf of the Federal Power Commission, having first been duly sworn by the Examiner, was examined and testified as follows:

Direct Examination

BY MR. McALLISTER:

Q. Mr. Bass, will you state your full name and address for the record, please?

A. P. B. Bass, Elizabeth, New Jersey.

Q. By whom are you employed, Mr. Bass?

A. Public Service Electric and Gas Company.

Q. What is your position with that company?

A. I am assistant division superintendent, central division.

Q. Will you describe in a general way the area under your jurisdiction?

A. The area under my jurisdiction comprises Union County, which is in the central part of the state, also parts of Middlesex and Somerset Counties in New Jersey.

Q. Could you describe the area under your jurisdiction having relation to the lines and operations and towns which you serve, having particular reference to the substations that come directly under your supervision?

What I have in mind, Mr. Bass, is the area indicated on the exhibits which have been received in evidence as Exhibits 9 and 10. 10 is rather a large area.

A. Well, on Exhibit 9 are shown Mechanic Street, Carteret, Rahway, Keasby, Metuchen, Tremley and Linden substations. All of these substations come under my jurisdiction.

Q. And does your jurisdiction extend to other territories?

A. It extends to other substations in this Central Division.

Q. Mr. Bass, do you maintain substation logs in the various substations which are operated under your jurisdiction?

A. We do.

Q. Are instructions issued as to the manner in which those logs are to be kept uniform to all substations?

A. That is correct. We have a standard procedure for taking readings in substations.

Q. Can you state what times in the day?

A. Readings are taken on all feeders, both 26,000 volt line and local distribution, hourly, from 12 midnight until 6 a. m., and from 6 a. m. until 12 midnight, every half hour.

Q. And those half hour readings are taken on what might be termed 30 minute intervals?

A. 30 minute intervals.

Q. Would you describe briefly for the record just what these log sheets are and their significance in the operation of a substation? Why are they maintained?

A. They are maintained in order that we may be able to study the readings of the substations for any day of the week or month. In other words, we can go back over these logs and determine the load on the feeders and the load on the substation at any time.

Q. And from what source is the information that is recorded on the log sheets obtained?

A. It is obtained from indicating and recording instruments which are on the switchboard in the substation, obtained by the operators.

Q. Are these records kept and preserved for any period of time?

A. Oh, yes, they are kept for years. Just how many years I can't say, but they go back over at least five or six years. I can state that.

Q. Would it be reasonable to say the log sheets tell the story of what is transpiring or has transpired in a substation at any particular time?

A. They do; yes, sir.

Q. Do the log sheets and operation of Mechanic Street substation come under your jurisdiction?

A. They do.

Q. Mr. Grimsley in testifying said that the log sheets in Mechanic Street Substation were made available to him for examination. Are those log sheets that were made available to Mr. Grimsley the regularly maintained records and log sheets that are kept in connection with the operation of that Mechanic Street Substation?

A. They are. They are kept at our district office at Perth Amboy. They were made available at that point.

Q. Those are the official records of the company that were made available to him which record these readings from the various instruments in the substation on the log sheets?

A. They were the official records.

Q. Mr. Grimsley in testifying stated that certain loads at Carteret, Keasby, Rahway, Linden, Tremley, and Metuchen Substations were furnished to him by Public Service Electric and Gas Company.

Those loads, I believe you stated, at those substations are determined from the logs that are regularly maintained and kept in connection with the operation of those substations?

A. That is correct. From those daily logs we prepare what we call load curves, showing the load every hour of the day. It is a graph showing the load.

Q. I believe you were furnished with a copy of that statement and asked to verify the correctness of the information supplied, as taken from the records which are regularly kept under your supervision and direction, is that correct?

A. That is correct.

Q. And have you found whether or not those figures which were supplied to Mr. Grimsley and which are record-

ed on Exhibit 13 are the correct and true figures representing the loads at these substations at these times as determined by you from your records?

A. I had these loads checked and find that they are all correct with the exception of readings at Metuchen Substation, shown in the last column on the right for the date August 5th. There are three readings for Metuchen Street Substation for August 5th, a reading at 7:00 a. m., 7:30, and 8:00 a. m. The readings shown are 680, 600 and 640. The correct readings are 920, 920 and 1,250.

Q. Otherwise, they are all correct?

A. Otherwise they are all correct.

Q. Mr. Bass, Mr. Grimsley in testifying stated that he was supplied by Public Service Electric and Gas Company with figures indicating the power factor at the substations in the Central Division at times of ordinary heavy load conditions.

Will you state for the record whether those figures which are shown on Exhibit 14 are correct figures as shown by the records of Public Service Electric and Gas Company?

A. I would say they are substantially correct.

Q. Will you describe for the record just what elements are taken into consideration in determining what this power factor is or should be?

A. Well, the power factor as given in Exhibit 14 does not show at what time the power factor was taken, and of course the power factor varies with the time of day and type of load the substation is supplying. Some of our industrial substations are supplying power load and others light load, and naturally the power factor is going to vary.

Q. What condition is assumed to exist at the time these power factors were determined?

A. Apparently these power factors are for heavy load conditions, and upon examination I would say that they are about what I would expect them to be for the substations listed here.

Q. Are any official tests made from time to time to determine what the power factors actually are?

A. Yes, we have our laboratory make tests from time to time to determine what the power factor is on our various substations at different times of the day.

Q. Did the laboratory tests indicate the correctness of these figures which you say in your judgment are correct?

A. They do for Mechanic Street, Carteret, Metuchen, Keasby, Tremley, and Rahway Substations.

Q. With respect to the other substations—

A. (interposing) That leaves Mechanic Street Substation general cable and Linden Substation for which I have no test records.

Q. Will you state what times these tests were made?

A. Mechanic Street Substation at 10:50 a. m.; Carteret Substation, 7:45 p. m.; Metuchen Substation, 7:05 p. m.; Keasby Substation, 10:40 a. m.; Tremley Substation, 1:11 p. m.; and Rahway Substation, 7:00 p. m.

Q. And from your knowledge of operations at these substations would you say that these readings were taken at what might be considered at times of ordinary heavy load conditions?

A. I would say that, yes.

Q. Mr. Grimsley, in his testimony, referred also to the fact that certain line impedances in the Central Division were supplied by the Public Service Electric and Gas Company.

In that connection, Mr. Bass, is it a fact that you keep regular, detailed information on the various lines which connect substations in the Central Division?

A. We do.

Q. And that information is assembled and maintained and kept under your supervision and direction?

A. That is correct.

Q. And in that connection do you obtain additional

data and information necessary to make a determination of the line impedances over the transmission lines which connect the substations in the Central Division?

A. We do. We furnish our engineers with the length of line broken down in lengths and sizes of cable and open wire together with the arrangement of the open wires, and they compute the impedances of those lines and furnish us with a copy.

Q. The information furnished by Mr. Grimsley as shown on Exhibit 15, is that information which was supplied by Public Service Electric and Gas Company to Mr. Grimsley?

MR. PAXSON: Which one is this?

MR. McALLISTER: 15.

BY MR. McALLISTER:

Q. Exhibit 15 records the information which was supplied by Public Service Electric and Gas Company to Mr. Grimsley showing the line impedances for the Central Division?

A. Lines in the Central Division?

Q. That is right.

A. Not all lines, certain lines. What is the question?

Q. Is the information recorded on Exhibit 15 the information which was supplied to Mr. Grimsley?

A. It is.

Q. And the basic information upon which those impedances was determined, is that information which was supplied by you after assembly under your supervision and direction, is that correct?

A. That is correct.

Q. And now as to the computation as to the impedances in these lines, can you state whether or not the figures shown on Exhibit 15 are correct?

A. I have checked these and with one exception I

would say they are all correct. I checked them on a slide rule within one or two hundredths. The impedances are given within two decimal points. I checked in one decimal, one-hundredths you might say. One, I find is a little different from what is given here.

Q. On Exhibit 15?

A. On Exhibit 15; yes, sir.

Q. Will you indicate what that is?

A. On Mechanic Street N-196, the impedance shown on Exhibit 15 is 4.39. I calculate that to be 3.99.

Q. Otherwise the information shown on that exhibit is correct, as you have stated?

A. The impedances I checked. I did not, however, check the angle. I checked the impedances.

Q. But if the basic information and data is utilized the angle can be readily computed, can be as readily computed as the impedance?

A. It can be computed from the data which is used to compute the impedance.

Q. It is merely a mathematical computation?

A. That is right.

Q. Mr. Bass, is the line, the circuit connecting the Mechanic Street Substation with the Staten Island Edison Corporation operated as an open or closed circuit?

A. It is closed. That is, it is normally in service, two lines.

Q. Two lines?

A. Yes, and they are both in service normally.

Q. And by that you mean under any ordinary, usual conditions, they are in service and it would be an extraordinary circumstance if they are out of service?

A. That is correct.

Q. Does that same condition exist in the line and circuit which connects Mechanic Street Substation with the power plant of the New Jersey Power & Light Company at South Amboy?

A. That is correct. They are both in service at all times under normal operating conditions.

Q. Mr. Bass, I direct your attention to Exhibit 10. There is shown on Exhibit 10 a line indicating a circuit south from Elizabeth, which joins with a circuit from Tremley to Linden, or is that from Rahway to Linden?

A. Rahway to Linden, and that joins at the Rahway Substation.

Q. Now what is the usual operation over that line? Is it operated as an open or closed circuit?

A. It is operated as a closed circuit. I beg your pardon, as an open circuit.

Q. That is normally, there is no connection on that line with Rahway Substation? I mean the connection is there, but the circuit is broken by the switch being open.

A. That is correct, it is normally open.

Q. Now there is also shown on that exhibit a circuit from Elizabethport to a point somewhere near Tremley. Now is that circuit operated open or closed?

A. That is operated open.

Q. Open also?

A. That is right.

Q. The conditions of operation and lines, and layout in the substations as shown on Exhibit 9, Mr. Bass, have they remained substantially as they are for some time, or have there been any recent changes that would affect the operating conditions in that area?

A. Well, do you mean by some time? They have been that way for a year or so.

Q. Have there been any material changes or any changes since January, 1938?

A. No.

Q. Would your answer be the same for the period from January 1, 1937?

A. That would bear checking, but I think my answer would be yes, would be that there have been no changes;

have been substantially the same since January, 1937, or somewhere in there, we made a slight change the first of 1937. I am not certain of the date.

Q. Somewhere around the first of the year 1937?

A. Yes, sir.

Q. What was that change you had reference to? Was that in Mechanic Street Substation?

A. No, it had to do with cutting into service with Linden Substation.

Q. I see.

A. Which was looped in on a circuit between Railway and Tremley. It was a new substation cut in service.

Q. And that was the only change affecting the operation of the area shown on Exhibit 9 since approximately the first of the year 1937?

A. That is correct.

Q. This change at about that time is the only change which you say has taken place in the layout of the lines and substations in that area?

A. That is correct.

MR. McALLISTER: Off the record, please.

EXAMINER SPENCER: Off the record.

(Discussion off the record.)

MR. McALLASTER: I turn the witness over to counsel for cross examination.

EXAMINER SPENCER: You may proceed.

MR. PAXSON: I only have one question. I might as well ask it now.

Cross Examination

BY MR. PAXSON:

Q. Mr. Bass, referring to Exhibit 14, are the power factors at the time of the light load much different than

those shown in Exhibit 14?

A. I haven't in front of me a record of the tests that were made. I can give you base angle readings and from those you can determine the power factor at light load, which are not given here.

Q. In other words, Mr. Bass, you can't answer the question, but you toss it back to me.

A. If I had a table, I could. I have the angle. I haven't worked out the power factors.

Q. They are available?

A. They are available, that is correct.

MR. PAXSON: That is all.

(Witness excused.)

MR. McALLISTER: At this time, Mr. Examiner, I would like to offer in evidence Exhibits 13, 14, 15 and 16.

EXAMINER SPENCER: 16 has been offered, has it not?

MR. McALLISTER: No, it has not. It is based on the information contained in some of the other exhibits, so I did not offer them, but merely identified them. Now, having through Mr. Bass established the verity of the basic information that is related on these exhibits, I ask that they be received in evidence and assigned the numbers that were given to them when they were identified.

EXAMINER SPENCER: Any objection?

MR. PAXSON: Just a moment, I want to gather these together.

EXAMINER SPENCER: Mr. McAllister, I think Mr. Paxson wishes to address you.

MR. PAXSON: As to Exhibit 13 offered in evi-

dence, as to this paper offered in evidence as Exhibit 13, I object as to any figures shown for the year 1938 on the ground that they are incompetent, immaterial and irrelevant, as all the figures there shown are for dates subsequent to March 14, 1938.

I have the same objection to the compilation proposed as Exhibit 16. Same objection to both of them, all the figures for 1938 on proposed Exhibit 16 are for a date subsequent to March 14, 1938.

EXAMINER SPENCER: 15 and 16?

MR. PAXSON: 13 and 16.

EXAMINER SPENCER: 13 and 16. Let the record show that the statement offered by counsel for the Commission, identified as No. 13, is to be assigned to No. 13, Exhibit No. 13, and is admitted over the objection of the attorney for the respondent, and the statements identified to be assigned to Nos. 14 and 15 are admitted without objection, then the statement to be identified as Exhibit 16 is admitted over the objection of the attorney for the respondent.

(The papers referred to, previously marked for identification, were marked Commission's Exhibits Nos. 13, 14, 15 and 16, respective, and received in evidence.)

MR. McALLISTER: Mr. Paxson, I understood you to say that 16 related to information only for the year 1938. Did I misunderstand you?

MR. PAXSON: No, I said all transactions referred to having occurred in 1938 were subsequent to March 14th of that year. I have no objection to the data for the year 1937 subject to the usual right to check, although I have no doubt in view of the evi-

dence, they are correct.

EXAMINER SPENCER: You may proceed, Mr. McAllister.

MR. McALLISTER: Mr. Examiner, I have no more questions to put to Mr. Grimsley at this time since these exhibits have been received in evidence, and he is available for cross examination, and I was going to suggest we recess at this time and then come back and let him begin his cross examination, and then let opposing counsel begin their cross examination after recess rather than start it now. It is only a matter of 10 or 15 minutes left.

MR. PAXSON: Mr. Examiner, I would like to make a motion.

EXAMINER SPENCER: I will hear you, Mr. Paxson.

MR. PAXSON: I have no objection to taking a recess at this time, but at this time I wish to make a motion that this hearing be adjourned to a subsequent date to be fixed by the Commission, at least for one week or two weeks.

In the first place I had a telephone call last evening on a matter of great urgency which requires, and probably will require all my time this afternoon, to take up some very urgent matters with the Federal Power Commission, and it has to do with the transfer of some properties of the Kentucky Tennessee Power Company, which I represent, to some municipality and the TVA, and it is very urgent, as it is necessary that some papers be filed, and it must be taken up at once. For the afternoon, I am trusting at least, the Commission will excuse me so I can take up other matters of great urgency.

Secondly, as to tomorrow, Mr. Crumley, and my associate, Judge Antenrieth, have other engagements of great importance so they can not be available tomorrow, and in addition, from the evidence and testimony that has been introduced, Mr. Grimsley here has introduced some 18 exhibits, highly complicated, showing great enterprise on the part of both Mr. Grimsley and counsel, and he has also offered and over our objection introduced by reference reports of I don't know how many different companies which he states are available to us. We of course have had no opportunity or time to study them or know what they are about. It may be after certain studies I may not care to cross examine Mr. Grimsley at all. There must be nearly 200 pages of testimony here. As I say it is highly complicated of an engineering character and it really probably requires a professional engineer to prepare questions for the proper cross examination. If I am compelled to do so I can do my best, but I am afraid much more time would be consumed.

EXAMINER SPENCER: I would like to request counsel for the respondent to reduce his motion to writing and submit it this afternoon. What time do you have your engagement this afternoon?

MR. PAXSON: The sooner the better.

EXAMINER SPENCER: We will recess until two o'clock.

MR. McALLISTER: I just want to make a statement on the record before consideration is given to such a motion.

EXAMINER SPENCER: I am not going to consider it now. I asked that they reduce it to writing and will consider it this afternoon.

MR. McALLISTER: I would like to make this statement before recess, that this matter is a matter which respondent must have had in mind for some considerable period of time. In other words, whether or not these utilities are public utilities or not, that is whether they engage in the transmission of electrical energy in interstate commerce, are matters which they must have given some consideration to, based on assumption, and they should be prepared to show upon the record now wherein they relied for their claim, as stated in their answer to the motion to show cause, that these companies, that the Jersey Central Power & Light Company does not own facilities utilized in the transmission of electrical energy in interstate commerce and does not engage in the sale of electrical energy for resale at wholesale.

I am opposed to the granting of any continuance for these reasons.

Mr. Paxson appears with another member of his firm in this case and we should be able to proceed this afternoon, even if Mr. Paxson finds it necessary to be absent.

It can be reasonably assumed a case of the character which we have here should be completed without the necessity for a recess when the basic data and information which we have put in is basic data and information that is available to all parties and is not as voluminous as it has been made to appear. Information has gone in slowly, Mr. Paxson has a copy of the transcript of the proceedings from yesterday, and all data and information appears to be presently available for the continuance of this case to its conclusion.

MR. PAXSON: I wish to make one other statement. Certainly we have given a great deal of consid-

eration to the question whether Jersey Central is a public utility and we have reached the firm conclusion it is not. We haven't heard any testimony thus far which indicates a contrary belief and when the time comes for us to put in our direct testimony which we are preparing now and will then be prepared to put it in, we expect to show that our contention is right.

It seems to me in opposing this motion counsel for the Commission has taken a position that is rather surprising to me. I did not consider this was in any way an adversary action. I assumed it was an investigation to ascertain facts. I assume all the Commission is interested in and all Mr. McAllister, representing the Commission, is interested in is what the facts are and ascertaining those facts and letting the chips fall where they may. I know he is not interested at all in shutting off cross examination of a competent character prepared by engineers which might expedite the hearing, simply for the sake of winning a lawsuit. I don't suppose he is.

MR. AUTENRIETH: May I, if the Examiner please, join in the application of Mr. Paxson on behalf of the Jersey Central Power & Light Company? I find the cross examination of Mr. Grimsley presents a great many unforeseen matters by reference to other reports and documents we have had no time to see, and I think time would be saved of your own and the Commission's if we can cut out all of this reference situation that may or may not be of importance.

EXAMINER SPENCER: Can you prepare your written motion and submit a copy to Mr. McAllister before two o'clock? That will be possible, will it not?

MR. PAXSON: Yes.

MR. McALLISTER: I just want to say on the

record so it will appear I am as much concerned about the facts as Mr. Paxson is, and it is only the facts and the true facts we are looking for, but we do like to begin a hearing and conclude it without any unnecessary delay, and to my mind there seems to be no necessity for continuing the hearing to a later date.

EXAMINER SPENCER: Consideration will be given the motion at two o'clock. We will now take a recess until two o'clock.

(Whereupon, at 12:20 o'clock p. m. a recess was taken until 2:00 o'clock p. m. this day.

AFTERNOON SESSION

(The hearing was resumed at 2 o'clock p. m., pursuant to the taking of the recess.)

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

MR. McALLISTER: Mr. Examiner, I have one statement that I omitted to put in while Mr. Bass was on the stand. Mr. Bass wishes to get away, however. This is a matter that I mentioned to counsel for respondent. It has to do with information that was supplied to us by the Public Service Electric and Gas Company over the signature of the Assistant Comptroller, showing the interchange of electric energy between Public Service Electric and Gas Company and Staten Island Edison Corporation. Mr. Bass has verified the figures. He has been sworn, and I would merely like to have him identify the exhibit and then let him return home. I am perfectly willing to save

to Mr. Paxson his exception as to those readings shown after the 14th day of March of 1938.

EXAMINER SPENCER: Mr. Paxson does not have an associate here?

MR. AUTENRIETH: Both of them are away at this time.

EXAMINER SPENCER: At what time is it necessary for Mr. Bass to leave?

MR. McALLISTER: He is trying to catch the 3 o'clock train.

MR. AUTENRIETH: Personally I have no objection. Mr. McAllister spoke to me about it before. But I do not want to anticipate the question and answer for Mr. Paxson.

MR. McALLISTER: I have not yet offered this in evidence but I was thinking it was of little consequence so far as Mr. Paxson is concerned. We might let it go in and let Mr. Bass get away.

EXAMINER SPENCER: Can Mr. Bass verify it now and then you introduce it later.

MR. McALLISTER: Yes, Mr. Examiner.

P. B. BASS

was recalled as a witness by and on behalf of the Commission and, having been previously duly sworn, testified as follows:

Direct Examination

BY MR. McALLISTER:

Q. Mr. Bass, the letter dated April 28, 1938, which I have just handed to you is signed by William J. Reynolds, Assistant Comptroller of Public Service Electric and Gas

Company, and purports to transmit information showing the interchange of electric energy between Public Service Electric and Gas Company and Staten Island Edison Corporation. Will you state whether or not from the records maintained under your jurisdiction the flow of energy shown thereon is correct and whether you have checked it?

A. I have had the records checked and the report is that they are correct.

Q. As shown on this statement?

A. As shown on this statement.

MR. McALLISTER: That is all.

Cross Examination

BY MR. AUTENRIETH:

Q. From where were these records taken, Mr. Bass?

A. These records originated from the Comptroller's Office. As I understand it, they were sent to the Federal Power Commission. I had these records checked against our operating records and they were verified.

Q. Where are the watt meters located?

A. The watt meters are located at Mechanic Street Substation.

MR. AUTENRIETH: That is all.

MR. McALLISTER: That is all.

EXAMINER SPENCER: You may be excused, Mr. Bass.

(Witness excused).

MR. McALLISTER: Mr. Examiner, I will offer this letter and the statement which has just been identified by Mr. Bass. I will offer the documents as Com-

mission's Exhibit No. 19. I ask that you reserve your ruling on that offer, Mr. Examiner, until Mr. Paxson has had an opportunity to see it. I would not want to undertake to pursue this course if it were not for the fact that I promised Mr. Bass that he could get away, and we have now gone 15 minutes beyond the time set for convening the hearing. I do not think it is anything that Mr. Paxson would object to.

MR. AUTENRIETH: I do not think so. It is information we have already.

MR. McALLISTER: As long as the witness has identified it and stated it first, of course, that is the thing we are interested in primarily.

EXAMINER SPENCER: Do you have further witnesses, Mr. McAllister?

MR. McALLISTER: Not until the cross examination of Mr. Grimsley is completed.

MR. AUTENRIETH: I might say, Mr. Examiner, the Jersey Central Power and Light Company's interest in this matter does not relate to whether or not the Jersey Central Power and Light complied with the law in the matter of transfer of securities. The Commission's action on that, perhaps, in a general sense is not our concern. We are concerned in the matter incidental thereto, in the matter of the determination of interstate commerce. In that connection I have arranged with Mr. Paxson that he conduct the cross examination. Of course, his interest is greater than ours in that respect, so I shall appreciate it if you will indulge us a few more minutes before carrying on. I heard that Mr. Paxson is on the way here.

EXAMINER SPENCER: Then, we shall wait for a few minutes.

MR. McALLISTER: Mr. Paxson is now arriving, Mr. Examiner.

EXAMINER SPENCER: You may proceed.

MR. McALLISTER: Mr. Paxson, Mr. Bass wanted to get away, and in your absence I had a statement that I merely wanted him to identify. I would like to have you look at it, if you will. I do not think you will have any objection to it. It is merely a statement by him that they are verified and that it represents the operating records.

MR. PAXSON: Do you want to put in the whole thing?

MR. McALLISTER: Yes. I have offered it, but I asked the Examiner to reserve his ruling until you had an opportunity to examine it. I stated that I was perfectly willing that his ruling reserve you an exception as to the readings which related to dates subsequent to March 14, 1938.

MR. PAXSON: I understand Mr. Bass verified this?

MR. McALLISTER: Yes.

EXAMINER SPENCER: I will have the reporter read the testimony of Mr. Bass for your benefit, Mr. Paxson.

(The testimony of the witness P. B. Bass on this matter appearing on pages 181 and 182 of this transcript was then read by the reporter.)

MR. PAXSON: I would have no cross examination of Mr. Bass. I have only one objection to this offer as an exhibit, and that is the same that I have made heretofore, that any transactions which were

subsequent to March 14, 1938, are incompetent, irrelevant and immaterial.

EXAMINER SPENCER: Let the letter and the attached statement be admitted as Commission's Exhibit No. 19.

(The documents above referred to were received in evidence and marked Commission's Exhibit No. 19.)

MR. PAXSON: At this point I wish to apologize most profusely to the Examiner and to all of you gentlemen for having been delayed so long. I find I really overestimated my ability in getting a stenographer in Washington at lunch time who could type out any adequate petition, no matter how small. As it is being done there were so many errors in it that it was impossible to bring it with me, but it will be here at any time.

Well, it has just arrived, Mr. Examiner.

If the Commission please, I have a motion for adjournment of this hearing which I wish to file with the Commission. A copy has just been served on Mr. McAllister.

EXAMINER SPENCER: Let the record show that counsel for New Jersey Power and Light Company and counsel for Jersey Central Power and Light Company filed a motion for adjournment of the hearing.

It is ordered that the written motion be made a part of the record in this case.

Now, Mr. Paxson, will you read that motion, please?

MR. PAXSON (reading): "Motion for Adjournment of Hearing

"To the Federal Power Commission:

"The petition of New Jersey Power & Light Company and Jersey Central Power & Light Company by C. Edward Paxson and Joseph M. Autenrieth, counsel for respondent and intervener, respectfully represents that:

"1. Pursuant to the order of the Commission, this cause came on to be heard at 10 a. m., September 27, 1938, and has since continued. During the proceedings already had, counsel for the Commission has introduced extensive testimony by Mr. Grimsley all of a scientific and engineering character and has through the said witness submitted for the record, eighteen exhibits of a technical and engineering character. The Commission has at 12 o'clock noon, September 28, concluded its direct examination of Mr. Grimsley and has offered the witness for cross examination.

"2. The testimony of Mr. Grimsley will comprise about two hundred pages of typewritten record and is a result of engineering and scientific studies made by Mr. Grimsley as to the physical characteristics and the operations conducted on at least five large operating public utility properties, only two of which are parties hereto. His testimony is to a large extent concerned with theoretical problems in physics and electrical engineering. The exhibits introduced are to some extent conclusions derived by the witness from his intensive studies. Some of the exhibits depend upon calculations made by the witness after an examination of recorded data which explained hundreds, even thousands, of daily transactions in the interchange of power between several large operating public utilities. Some of the exhibits introduced by this witness are based in part upon the public records of the Federal Power Commission as to the operations of companies

not involved in this proceeding for the last four years.

"3. The nature and extent of the testimony and exhibits thus offered on behalf of the Commission is such as to make it physically impossible for counsel to conduct any pertinent or relevant cross examination until such counsel have an opportunity to submit the testimony of Mr. Grimsley, the exhibits introduced by Mr. Grimsley and the data supporting such exhibits which are in the public files of the Commission to the scrutiny of competent engineers. Counsel are by the very nature of the testimony rather than by any lack of preparation totally unprepared to search into the matters introduced by Mr. Grimsley. Counsel by nature of the case are unprepared to state whether any cross examination is necessary and represent that, after consultation with their engineers, they may determine that no such cross examination is necessary in such event there would be a considerable saving of the time which would be otherwise wasted by the continuance of the public hearing. If said public hearing be continued at this time, counsel may in the interests of their clients be compelled to take Mr. Grimsley over every step of his direct examination, point by point. If the hearing be continued such a course of proceedings would not be necessary since the studies could be examined by competent engineers in an orderly and efficient manner.

"4. The instant hearing has for its object the ascertaining of physical facts as to the properties owned by the parties hereto and the methods by which they conduct their business and the methods by which they operate their property. The proceeding is distinctly not one of adversary character. The facts in this case do not change from day to day. There can be no prejudice to the Commission nor can the public

interests be adversely affected by a continuance which will permit the orderly and efficient conduct of this public hearing.

"5. Mr. C. Edward Paxson, counsel for New Jersey Power & Light Company, has been the individual who has been actively in charge of the conduct of the proceedings herein for respondent. Mr. Paxson has just received notice that several urgent matters which require immediate conference with the Federal Power Commission, to wit, the proposed sale of certain utility properties to municipalities located in TVA area, require his immediate attention. In order to properly handle said matters, Mr. Paxson will be required to devote two working days to the preparation of papers, conferences with attorneys for the Federal Power Commission, and others, before he can be relieved from the pressure of said matters by any other attorneys.

"Mr. Autenrieth and Mr. Crumley, President of Jersey Central Power & Light Company, have an extremely important engagement which will occupy their time on Thursday, September 29, 1938, which will require their presence in New Jersey; and Mr. Autenrieth also has an engagement on Friday, September 30, before a New Jersey United States District Court, which requires his personal attention and which cannot be delegated to another attorney.

"Wherefore, the Commission is respectfully moved to grant an adjournment of the hearing herein until ten o'clock a. m., Monday, October 10, 1938."

And, I might add, "or until such other time as may seem proper to the Commission."

EXAMINER SPENCER: Since notice that this motion would be made was given very careful thought

and consideration has been given to the motion. The Examiner recognizes the fact that it may be difficult to cross examine Mr. Grimsley, yet this is a matter that ought to be concluded, and after careful consideration I have reached the conclusion that it will not be advisable to continue the hearing for any length of time, and it ought to be concluded at this sitting.

I think it may be possible to arrange the further cross examination of Mr. Grimsley, if counsel so desires, and leave him for one of your last witnesses, if that would be of any advantage.

MR. McALLISTER: Mr. Examiner, that can not be done until the cross examination of Mr. Grimsley is completed.

EXAMINER SPENCER: Unless counsel wishes to put on other testimony. If it is necessary for him to be cross examined before you can determine whether you will put on any other testimony, it can not be done.

MR. McALLISTER: That is the position I am in now. I tried to make that plain before the noon recess.

EXAMINER SPENCER: I am merely suggesting that it might be of some benefit to counsel for respondent and Jersey Central Power and Light Company.

MR. McALLISTER: Mr. Examiner, there is nothing about the testimony that has been submitted by Mr. Grimsley that is unusual or extraordinary or in the nature of surprise. It is based upon substantial evidence. The testimony is from facts and records available which, as a matter of fact, we know that respondent has already had access to over the elapsed period of time. I mean the records at Mechanic Street

Substation and other records that are made available by the Public Service Electric and Gas Company to the Federal Power Commission have likewise been made available to the respondent, and they have made use of them. They have had engineers down there. They had engineers down there for a period of time going over those records. This is not something that has come up of a sudden. It is not something that is of such a character that it is wholly foreign to their consideration.

I can not see any justification for extending or delaying the cross examination on matters which are based upon those fundamental facts which are equally available to all parties. And when the testimony Mr. Grimsley has put in is related to those substantial facts it follows along orderly any of the conclusions stated can be inquired into now as easily as at a later date.

EXAMINER SPENCER: Let the record show the motion is denied.

If counsel requires any time to get up any statistical rebuttal evidence to anything that has been introduced, such reasonable time as may be necessary may be granted later.

You may proceed.

MR. McALLISTER: Mr. Examiner, may I have an understanding as to the nature of that ruling?

EXAMINER SPENCER: I have not made a ruling except to deny the motion.

MR. McALLISTER: Thank you, Mr. Examiner.

EXAMINER SPENCER: You may proceed, Mr. McAllister.

MR. PAXSON: May I ask for a short recess of about ten minutes, Mr. Examiner?

EXAMINER SPENCER: We will now recess for ten minutes.

(Thereupon a short recess was taken, after which the following occurred:)

MR. AUTENRIETH: If the Commission please, I understood the Examiner's ruling to be that we could for the time being reserve our cross examination if we cared to go forward on the case. Mr. Crumley can not be here tomorrow, and he has requested that we be permitted to put him on now, which is part of our direct case.

EXAMINER SPENCER: Mr. McAllister says that he can not determine whether or not he will need other witnesses until the cross examination of Mr. Grimsley is completed. Therefore, it would seem that that plan would not be feasible. I am afraid you will have to proceed with the cross examination of Mr. Grimsley in the usual way.

MR. AUTENRIETH: In that situation, Mr. Examiner, Mr. Crumley will not be here tomorrow, and I would like to have some understanding that if we finish some time early tomorrow that we hear him on Friday morning.

EXAMINER SPENCER: Is he your first witness?

MR. AUTENRIETH: He is our first and only witness so far as the Jersey Central is concerned. Of course, we will rely upon the other witnesses in common. I was asking that we carry over until Friday and then return. Mr. Crumley can not possibly be here tomorrow. He is Chairman of the Board of Directors, and the Board of Directors' meeting is scheduled for

tomorrow. Without him there may be a lack of quorum. Some of these directors come from Boston and far-away places, and it is too late now to postpone the meeting.

EXAMINER SPENCER: I do not know how long we will continue tomorrow.

MR. AUTENRIETH: We may take all day tomorrow, and then the suggestion would not be of any importance.

EXAMINER SPENCER: Then you would want the case to carry over until Friday morning?

MR. AUTENRIETH: Yes, Mr. Examiner, for the purpose of putting in Mr. Crumley's testimony at the end.

MR. McALLISTER: That is satisfactory to me.

EXAMINER SPENCER: Then, we shall proceed with that understanding.

You may proceed, Mr. McAllister.

MR. McALLISTER: I understand that is where we stand right now, and we are waiting for Mr. Paxson to proceed.

EXAMINER SPENCER: Mr. Paxson is ready.

MR. McALLISTER: Then, I shall ask Mr. Grimsley to take the stand.

A. H. GRIMSLEY

resumed the witness stand and, having been previously sworn, testified on behalf of the Commission as follows:

Cross Examination

BY MR. PAXSON:

Q. Mr. Grimsley, when you were stating your quali-

fications at the beginning of your testimony I gathered that you are a graduate electrical engineer. Is that correct?

A. That is not correct.

Q. You are not a graduate electrical engineer?

A. No, sir.

Q. Most of your experience, as I understand it, was in railroading?

A. No; that is not correct.

Q. A large part of it was?

A. The major part of it has been in the electrical and mechanical fields.

Q. What electric companies were you with?

A. I was superintendent of the Kanawha Water and Light Company, Charleston, West Virginia.

Q. That was located in Charleston, West Virginia?

A. Yes, sir. I was in charge of, as I stated yesterday, the Electrical Department, generation and distribution, the waterworks, and, for a short period the street railway, and for a short period the gas distribution.

Q. What size territory does that company serve?

A. Then?

Q. When you were with them.

A. The City of Charleston and outlying districts. That was back in 1908 to 1915.

Q. That is when you were with them?

A. Yes, sir.

Q. They served the City of Charleston and vicinity?

A. Yes, sir.

Q. Thereafter, from 1915 to 1925, you were with what company?

A. Virginia Western Power Company.

Q. What territory did that company serve?

A. That company served the territory from Hinton, West Virginia, extending along the main line of the Chesapeake & Ohio Railroad through West Virginia and in to Virginia to Clifton Forge, and from there downward

down the James River to Balcony Falls, to Lexington, Virginia; then, later from Clifton Forge I built all of those transmission lines.

Q. You say you built them?

A. Yes, sir; I built them, designed and constructed them and operated them. And then later we acquired properties to the eastward, including Stanton, Waynesboro, Charlottesville, and a large area in there and connected all of those with high-tension transmission lines and revamped many power plants and built power plants and operated them.

Q. Did these companies belong to any big group of companies such as we have today?

A. At that time?

Q. Yes.

A. No, sir. We owned them locally. All of the common stock was held locally.

Q. Were you at the time tied in with any big systems such as a power pool such as you have described as existing in Pennsylvania and Delaware?

A. No, sir.

Q. You did not have any connection then?

A. There weren't any then.

Q. That is what I thought. During that time you didn't have any?

A. At that time, I am talking of. But we did study intensively what networks there were near us with a view of connecting them; for instance, the Appalachian System. We almost formed that connection. And then I studied with a view of purchasing other properties.

Q. I understand that, of course.

A. I wanted you to understand it.

MR. McALLISTER: I think the witness should be permitted to complete his answer, Mr. Examiner.

MR. PAXSON: I beg your pardon. He certainly has a right to complete his answer. If I interrupted

him I will ask that he proceed. I thought he was through. I did not want to interrupt the witness.

MR. McALLISTER: I think he did have something to add in connection with matters which he studied at that time. I think he should be permitted to complete his answer.

THE WITNESS: Prior to the time we started in at Charleston I do not want you to overlook the training and experience and study I made in the other branches of engineering and practice that I read into the record yesterday, which was very valuable experience. My study included pig iron blast furnaces and such things as that.

You will recall, too, in this period to which we were referring back in 1907, 1908 and 1909 and on up to 1915 there were very few networks in the United States.

MR. PAXSON: That is what I wanted to point out. I was speaking of your practical experience and not so much of what you learned from books or records filed with the Federal Power Commission.

THE WITNESS: Then in the past approximately four and a half years I have studied to a very considerable extent substantially all of the networks in the United States and have been on many of them. I made many studies. One of my principal assignments has been and is now to study the public utility status of the various companies, to study the facilities used in transmitting the energy interstate in connection with others, inter-connections, and to assemble the facts and reduce them to report form and reach conclusions for the Commission to make its determination as to the public utility status under the Act.

BY MR. PAXSON:

Q. That is while you were with the Federal Power Commission?

A. Yes, sir.

Q. But you yourself have not been in charge of nor working for any electric company since 1927? That is right, isn't it?

A. That is correct.

Q. When was this so-called power pool? Didn't you call it a power pool? When was it formed, including the Public Service and Pennsylvania Power and Light? Who are the parties in that pool? You were telling us about that yesterday.

A. I take it you followed me yesterday.

Q. I am not sure whether I followed you or not.

A. In other words, you led me up to a period there, or I did proceed up to probably a period of 1923 and connected these properties up from West Virginia east to Charlottesville. I operated those properties and had some options on other properties along in 1925. It probably dated back to 1924. And then in June, 1925, I think, I negotiated the sale of common stock of that company, Virginia Western Power Company. I remained there and helped to merge five other companies into the Virginia Public Service and set up the central operating organization.

During that period I was also retained in a consulting capacity to represent very substantial financial interests in New York for the purpose of studying other properties with a view of buying them.

Q. That is something that has to do with the sale of properties?

A. I beg your pardon?

Q. That has to do with the sale of properties, in an executive capacity?

A. I was studying them from an engineering and operating and financial standpoint.

Q. Did you ever operate a system which was interconnected with other systems during your practical experience with electric companies?

A. In Illinois when I was in charge of the Western United Gas and Electric Company we had an inter-connection with the Public Service of Northern Illinois.

Q. Did you ever operate it yourself? Did you have anything to do with the operations, like load dispatching?

A. Yes, I have done all of that.

Q. Did you with this company?

A. Yes I load dispatched for a long time. I set it up and created it and built the boards and the organization methods for operating the load. Remember that is a system as extensive as this one was, extending over a distance of some two hundred miles. In that system it was a network in itself with some four steam plants and three hydro-electric plants.

Q. What I am interested in knowing, Mr. Grimsley, is whether or not you operated a system which was interconnected with other systems owned by other interests so that you had practical experience with just how those inter-connections operated?

A. I see no difference between a network—

Q. That is not answering my question, Mr. Grimsley. I am not arguing with you. I am merely asking you a question.

A. With the exception of that in Illinois with another system.

Q. And what were those companies and systems?

A. Western United Gas and Electric Company, and I am not sure whether there were two connections or only one between that company and the Public Service of Northern Illinois.

Q. Now, then, Mr. Grimsley, I will go back to another question I asked you. You were talking yesterday about a power pool. Who composes that power pool? Is

that an arrangement covered by contract, or isn't it?

You can not remember without reading it from this little paper or memorandum you have?

A. I want to make sure of the term I used. If you are sure I used "power pool," that is perfectly agreeable to me, or if I used "inter-connected system."

Q. I am not sure myself.

A. That is what I thought when you asked the question. So I thought we would get right on it.

Q. I am not going to try to pin you down to any exact language. You were talking about a system which you said for all intents and purposes was one from an operating standpoint, and you mentioned certain companies. What are those companies? Now, really, Mr. Grimsley, you must know, don't you?

A. I do know, and I am going to tell you if you will wait a minute. But I am not going to be rushed in to guessing or being careless in my testimony.

Q. I should think one who has had so much experience and knowledge would really know the major companies and remember them.

MR. McALLISTER: I do not think this calls for an argument with the witness. I think the records he relied upon yesterday on direct examination are equally available to him on cross examination.

MR. PAXSON: I do not think any records are available except on matters of statistics and, of course, on that sort of thing. If a man was a trained engineer and had a broad knowledge, he should know.

I do not want to argue with you about it. He is attempting to qualify as an expert and he is trying to tie the Jersey Central Power and Light Company with a large system, yet he does not even know what the system is.

MR. McALLISTER: There is no basis for such a statement, Mr. Examiner.

EXAMINER SPENCER: Let him answer the question.

MR. McALLISTER: Mr. Examiner, I should like to be heard on one point.

EXAMINER SPENCER: All right, Mr. McAllister.

MR. McALLISTER: I would like to have the understanding that on cross-examination the witness has a right to rely upon the documents which he used in his direct examination. I think that is fundamental.

EXAMINER SPENCER: He is going to be permitted to rely upon them.

THE WITNESS: Mr. Examiner, I want to make sure that his question is put in such a way that I understand it. We dealt with different interconnected systems yesterday.

Now, if he means the large one embracing the Public Service Electric and Gas Company, the Philadelphia Electric Company and the Pennsylvania Power Company, then I shall proceed on that basis and answer any questions. If it was yet the larger one, which took in these other companies, we will discuss that. But I want to make sure what system he is talking about.

BY MR. PAXSON:

Q. I want to make sure what system you were dealing with yesterday.

A. I dealt with all of them.

Q. Let's take up the first one. Do you call that a separate and complete system?

MR. McALLISTER: I submit, Mr. Examiner, if a system is to be discussed it should be identified. Mr. Paxson has a copy of the transcript of testimony of yesterday and he knows what Mr. Grimsley said, and he knows what system he was discussing. There is no reason in the world why questions should be put so obtusely that no one can discover what the subject matter of the question is.

EXAMINER SPENCER: I shall ask the reporter to read the question asked by Mr. Paxson.

(The following was then read by the reporter:)

"Q. Now, then, Mr. Grimsley, I will go back to another question I asked you. You were talking yesterday about a power pool. Who composes that power pool? Is that an arrangement covered by contract, or isn't it?

You cannot remember without reading it from this little paper or memorandum you have?"

EXAMINER SPENCER: And the last couple of questions?

(The following was then read by the reporter:)

"BY MR. PAXSON:

Q. I want to make sure what system you were dealing with yesterday.

A. I dealt with all of them.

Q. Let's take up the first one. Do you call that a separate and complete system?"

THE WITNESS: It is in the record.

EXAMINER SPENCER: Mr. Paxson, will you ask your question again, please?

MR. PAXSON: As I recall it, he said there were several systems. He said he didn't know whether I

used "power pool" or "interconnected." I said I wasn't concerned with words but I wanted to know what was the arrangement between the first pool or interconnected system to which he referred; and he mentioned three companies—Public Service Electric and Gas Company, Philadelphia Electric Company, and Pennsylvania Power and Light Company. I want to know if he knows what arrangement there is between those companies for the operation of one system and interconnection.

BY EXAMINER SPENCER:

Q. Mr. Grimsley, do you know the arrangement for the operations existing among those companies?

A. The first one I discussed was the Jersey Central and its interconnections.

MR. PAXSON: Just a moment, please. I think I am entitled to have an answer to my question.

EXAMINER SPENCER: Yes, Mr. Paxson.

Do you know the working arrangement there?

THE WITNESS: I don't know what pool—

MR. McALLISTER: Mr. Grimsley, just pay attention to the question, please. The names included in the question should be sufficient to clarify it. When it is put in that way I think it should be answered, when it is identified with the names of the companies that go to make up the system.

MR. PAXSON: Of course, I was not clear about what he was identifying and I wanted to find out what he does identify.

Now, I need three, and I ask him if that constitutes to his mind one complete interconnected system.

MR. McALLISTER: Do you have in mind the three companies to which he is referring?

MR. PAXSON: Am I cross-examining or are you, Mr. McAllister?

EXAMINER SPENCER: Let's proceed regularly now, Mr. Paxson has asked a question. Proceed, Mr. Grimsley, if you can answer the question. He asked if certain companies had a working arrangement and, if so, what are those arrangements.

Now, let's have the question asked and the witness will answer it, if he can; and then no one else should have anything to say until there is a ruling on it.

Will the reporter read the last question?

(The following was then read by the Reporter:)

"MR. PAXSON: As I recall it, he said there were several systems. He said he didn't know whether I used 'power pool' or 'interconnected.' I said I wasn't concerned with words but I wanted to know what was the arrangement between the first pool or interconnected system to which he referred; and he mentioned three companies—Public Service Electric and Gas Company, Philadelphia Electric Company, and Pennsylvania Power and Light Company. I want to know if he knows what arrangement there is between those companies for the operation of one system and interconnection."

MR. McALLISTER: That is not in the form of a question, Mr. Examiner.

EXAMINER SPENCER: Mr. Paxson, will you please ask your question again?

BY MR. PAXSON:

Q. Mr. Grimsley, do you know whether Public Service Electric and Gas Company, Pennsylvania Power and Light Company and Philadelphia Electric Company are

operating what is commonly called a power pool or are interconnected as one system?

A. They are operating—

EXAMINER SPENCER: Mr. Grimsley, answer the question. Do you know that?

THE WITNESS: The question at the end has two things in it.

EXAMINER SPENCER: All right. Please proceed in your own way.

THE WITNESS: According to the records filed here I know that there is an interconnection agreement existing between those three companies under which they carry on their interchange of power through this 220 k. v. system shown on exhibit No. 1. In particular I refer to that because of the heavier transfer. There are other connections between Philadelphia Electric and the Public Service Electric and Gas Company. The substations are smaller in size and the amount of energy interchanged is not so great as through the larger group.

BY MR. PAXSON:

Q. What information you have, then, comes from the Federal Power Commission records? You don't know anything about it otherwise?

A. I do. I have been at those substations.

Q. You mean there are lines connecting those three companies?

A. I don't understand your question.

Q. I say, Mr. Grimsley, you mean you know now that there are electric lines connecting those three companies? Is that right?

A. Yes; in use and in operation, and, by the records, constantly interchanging energy. And when I was there I saw the interchange recorded and indicated by the instruments at the substations.

Q. Do you know whether there are any companies other than those three companies which are in this interchange arrangement? I am talking now, Mr. Grimsley, about a system.

A. An operating system? There are others attached to this. For instance, the New Jersey Power and Light Company is connected into this system with the Roseland substation.

Q. Is that information contained in these records which refer to this one operating system?

A. It is; and I saw the connection, and I was there.

Q. Is that in this record you referred to?

A. Yes.

Q. What record?

A. It is shown right there—Roseland.

Q. What is that record? I am trying to find out what your information is about the operations of this, as I call it, "power pool." I think that word was used. You may call it an "interconnected system." What is the arrangement between those companies? What is their arrangement? Do you know or don't you? If you say you don't know, that is all right.

A. I have the contract, very likely. I have read it and I have studied it.

Q. You say you have read their contract?

A. Yes.

Q. You know there is a contract between them governing this interchange?

A. Yes, sir.

Q. What is that contract? Is it for firm power?

A. Well, there are so many items here, discussed and set forth, diversity energy, firm energy, emergency energy, economy energy, dump energy.

Q. What are you reading from now, Mr. Grimsley?

A. A copy of the contract.

Q. Who are the parties to the contract?

A. The agreement is between the Public Service Electric and Gas Company, the Philadelphia Electric Company and Pennsylvania Power and Light Company.

Q. They are the only parties to that contract, aren't they?

A. That is all that is given. I know of no others.

Q. The New Jersey Power and Light Company and the Jersey Central Power and Light Company are not parties to that contract, are they?

A. No.

Q. That is a firm contract, isn't it, Mr. Grimsley?

A. Well, I would call it firm and binding. Whether you are referring to firm power, I don't know.

Q. Maybe my language isn't so good. I will put it another way.

That calls for firm deliveries, doesn't it, each party has the right to demand certain supplies of power from the other, don't they?

Don't you know that arrangement without reading the contract?

A. This is a voluminous thing in this way, many contracts, I do not have all those contracts in mind, but I can get the information if you will give me the time to answer every question you put.

Q. I am just trying to see, Mr. Grimsley, and I want to be as kindly as I can, to see what you know about the operations of the so-called big system yesterday you wanted to tie the respondents in with them, and painted quite a picture. You are qualified as an expert or trying to, but I want to see what you know about it.

A. All the picture I painted yesterday, I am quite sure it is recorded and correct.

As one part of this agreement between the Pennsylvania Power and Light Company, Public Service Electric and Gas Company, and Philadelphia Electric Company interconnection operating arrangements, effective

June 1, 1934, under the caption of firm power—

Q. (Interposing) Don't you know?

A. The energy associated with firm power shall be classified as firm energy and billed according to the rates reached through agreement by the parties entering the contract for such power. For all firm power contracts hourly drafts shall be specified. Due to economies of operation, the receiving company at times may not receive its specified firm energy. In this case the receiving company shall be considered to have received the specified firm energy and the energy generated by it to replace energy to which it was entitled, but which it did not receive, shall be considered economy energy sold to the sending company. Both companies shall share equally in the savings thereby effected.

Q. Don't you know, Mr. Grimsley, as a matter of fact that by the arrangement between these three companies covered by that contract—do you say you have read it?

MR. McALLISTER: Well.

MR. PAXSON: May I finish?

EXAMINER SPENCER: Yes, proceed.

BY MR. PAXSON:

Q. That each of these parties is entitled to certain deliveries of power from the other?

MR. McALLISTER: Mr. Examiner, that question is argumentative and it seems to me that if this cross examination should proceed orderly the questions could be put without coupling into the question some form of argument.

MR. PAXSON: I wish the witness would follow that practice and counsel for the Commission yesterday and I think it would be a whole lot easier.

EXAMINER SPENCER: I think you have a right to ask that question.

THE WITNESS: That is my understanding generally.

BY MR. PAXSON:

Q. What is that?

A. I think it operates that way.

Q. That is correct?

EXAMINER SPENCER: That is his understanding.

BY MR. PAXSON:

Q. Do you know the reason for this arrangement between these three companies aside from economy?

A. I think I have a fairly good understanding of it.

Q. I would like to hear it.

A. In the agreement is set forth:

"Interconnection will make it possible to carry the loads of the three systems from less aggregate installed generating capacity, with consequent saving in investment and operating expenses, due to the existence between the three systems of a material load diversity, or non-coincidence of the times of occurrence of their maximum loads, and a material reserve diversity, or non-coincidence of the times of use of reserve generating capacity, and

"Interconnection will enable emergency conditions in any of the systems, such as breakdown of generating equipment, shortage of fuel or unforeseen increases in load, to be met with less likelihood of impairment of service to the public, and

"Interconnection will make possible lower costs of service through increased use of the more economical generating facilities and correspondingly decreased use of the less economical generating facilities, and

"Interconnection will make it possible to plan and construct future installations of generating equip-

ment in areas and places which will result in lower costs of service, and

"The parties hereto accordingly desire to effect an interconnection between their respective systems and so to establish their respective rights and obligations in the construction of the necessary facilities and their subsequent operation and use as to insure the equitable apportionment of the benefits resulting therefrom."

Q. You read that?

A. Now such studies—

Q. (Interposing) You were reading there from what?

A. From the agreement. I believe that those anticipated results have been in a large measure achieved. Some of that information was, I thought, very pertinent in the record yesterday as to how this operated.

Q. What is diversity? You mentioned diversity, rather you read about it, what is diversity?

A. Well, which diversity? I think there are two or more referred to.

Q. You know what diversity is as an electrical engineer.

A. Between systems?

Q. Yes, you don't have to read about that, do you? I think too much of your qualifications as an expert.

A. Yes, but there are other diversities referred to. I wanted to answer your question correctly and accurately. Between the two systems a peak load occurs on one at a different time than the other may have its peak and then by combining their load curves when their peaks do not coincide, their annual peaks, the resultant total of the two loads is less than the sum of the two required, therefore to carry the combined load less generating capacity at the time at the resultant peak of the two loads occurs.

Q. Exactly. Then, what you are trying to tell me, as an operating matter certain companies take advantage

of the diversity by supplying each other with energy, across state lines or otherwise.

A. That is what these three companies do, yes.

Q. And they have a firm contract to do that and each takes care of the other peak and are entitled to get it.

A. They contribute, each to the other's peak.

Q. Is it not based on the principle of diversity where one company can call on another company, their peaks being different and thereby they form a power pool?

A. You will have to read that question.

(The reporter thereupon read the pending question as recorded.)

Q. Isn't that so?

A. A few years ago that was a paramount issue. That was the all-important thing, but now we find there are other conditions that enter into the operation of such a pool that will make other economies other than generating equipment, such as being able to operate their most efficient units at the highest rate and best point, and the older machinery can lie idle and stand-by.

Q. All right, if that was the paramount reason actuating these three companies to enter into this agreement—

A. (Interposing) These things set forth some—

Q. (Interposing) You said that was the paramount reason.

A. I said years ago.

Q. You either know or don't know what was their reason.

A. I know exactly what I am talking about, Mr. Paxson.

Q. I am not saying you don't. I am trying to find out.

A. All right.

EXAMINER SPENCER: Proceed.

BY MR. PAXSON:

Q. As an operating matter agreements for such power

must be for firm power, isn't that right?

A. Not under all conditions, no. There are a great many conditions where we could not—

Q. (Interposing) Do you know of any agreement or arrangement?

A. I have studied several of them.

Q. Such as this, that doesn't call for firm power.

A. Now you have gotten away from your question, Mr. Paxson.

MR. PAXSON: Will the reporter read it?

(The reporter thereupon read the pending question as recorded.)

THE WITNESS: I know of others.

BY MR. PAXSON:

Q. What are they?

A. For instance where there is large storage of water power, it might be firm power for a few months in the year when the system operation has its peak and have no other need for it the rest of the year. In these three companies there is one, a storage plant at Wallenpaupack.

Q. Wallenpaupack is the Pennsylvania Power and Light Company and is covered by this agreement?

A. Yes, it has large—

Q. (Interposing) Would you say, or would you not when you have a systematic interchange of power they are predicated on firm commitments to interchange to take advantage of diversity?

A. Well, it is highly desirable but they don't always operate for that purpose.

Q. I don't think the answer is responsive.

A. You have it right in your Jersey Central, you know, because—

Q. (Interposing) You know this arrangement between these three is predicated on firm power.

A. Not predicated, it is one of the conditions.

Q. Well, using your own language, it is there.

Is the Jersey Central Power and Light Company part of any such system, by which I mean one that has any firm commitments for interchange to take advantage of diversity?

A. In this contract I think not, but as it operates it actually did carry part of the Public Service Electric and Gas Company peak load. It worked out that way, as I related yesterday.

Q. But it is not under any obligation to do so, is it?

A. I think there would be an obligation of this kind that would work out for Public Service in the same capacity—

Q. (Interposing) Are you talking about a moral obligation or a legal obligation?

A. I am talking about something that makes good sense and used in practice.

Q. I am asking an entirely different thing and there is no sense making unresponsive answers. I asked you whether Jersey Central was under any obligation to furnish power to Public Service Electric and Gas Company.

BY EXAMINER SPENCER:

Q. Do you know?

A. To furnish power? Yes.

EXAMINER SPENCER: The answer is it is.

MR. McALLISTER: That interchange is covered by contract. The contract speaks for itself. There is no occasion for arguing about it. Nothing the witness can say is going to alter the terms of the agreement.

MR. PAXSON: I made the same suggestion yesterday but you still let him talk about the contract.

MR. McALLISTER: I did in connection with

studies he had made. It was proper for him to relate the terms of the contract without attempting to interpret them so that he could conclude what the obligation was under the contract.

EXAMINER SPENCER: I understood him to say this particular company was not a party to the contract. Read the question.

(The reporter thereupon read the pending question as recorded.)

BY EXAMINER SPENCER:

Q. Do you know that, Mr. Grimsley, whether the Jersey Central is under obligation to furnish power to Public Service Electric and Gas Company? That is a matter that may or may not be within your knowledge.

A. The first question carried firm power.

Q. This is a different contract he is asking you about. This is a different matter.

BY MR. PAXSON:

Q. I will change the question to simple form. He says he has made a study of this system, the Jersey Central and other records, and all I asked you does Jersey Central Power and Light Company supply any firm power to Public Service Electric and Gas Company? Does it supply firm power?

A. I tried to answer that in a responsive way. It has so operated at times it has delivered. I don't believe under the terms of the contract that they are obliged to furnish firm power. That answers your question?

Q. You know what firm power is in the electrical business as an engineer.

A. Mr. Paxson, that is the term that has been loosely used and there is a great difference of opinion, and unless defined, there can be very great misunderstanding develop out of the use of the word just as you are using it.

MR. McALLISTER: Mr. Examiner, may we have a five-minute recess?

EXAMINER SPENCER: Yes, sir.

(Whereupon, a five-minute recess was had, at the conclusion of which the following occurred:)

EXAMINER SPENCER: You may proceed, Mr. Paxson.

BY MR. PAXSON:

Q. The Jersey Central Power and Light Company is not under any obligation to supply any power to Pennsylvania Power and Light Company, is it?

A. Not by contract, no.

Q. Does it supply any firm power to Pennsylvania Power and Light Company, let's get away from the legal obligation?

A. No.

Q. Does it supply any to Philadelphia Electric Company by any arrangement with Philadelphia Electric Company?

A. It is possible.

Q. I am not asking you what is possible. You made a study of this thing and I am asking you whether you know by reason of your researches and studies, whether you found any evidence that the Jersey Central Power and Light Company supplied any power to Philadelphia Electric Company by any arrangement with that company?

A. No.

Q. Or to any of these other companies in Baltimore you mentioned which I do not recall the names of, or any other company in what you call this "vast interconnected system" other than New Jersey Power and Light and Public Service, where they do supply some power?

Strike that question, I will put it again. I admit it is involved.

Excluding Jersey Power and Light Company and Public Service Electric and Gas Company, did you find in your studies that Jersey Central Power and Light Company supplied by arrangement, contractual or otherwise with these other companies, any electric power?

A. Yes, it supplies Public Service: That is one of the three, you know.

EXAMINER SPENCER: His question was, excluding Public Service and New Jersey Power and light, does it supply any current to any other utility?

BY MR. PAXSON:

Q. By arrangement with those companies?

A. No, I don't think so.

Q. You are familiar, you say, with the South Amboy plant of Jersey Central Power and Light Company, Mr. Grimsley?

A. I have visited the plant. The operating records I have studied. To that extent I am familiar with it.

Q. When did you visit it last?

A. I couldn't supply the exact date, but I think it was some time in April.

Q. Of this year?

A. Yes, sir.

Q. That is good enough. You did have a recent acquaintance with it I presume.

Now you tell us that the South Amboy plant is interconnected with the Mechanic Street Substation, that is right, isn't it?

A. That is correct.

Q. What voltage is that electricity generated at the South Amboy generating station of the Jersey Central?

A. Just a moment.

Q. Don't you know that yourself?

A. I study hundreds of them, Mr. Paxson, but I will tell you exactly.

Q. This is the case—

A. (Interposing) I am studying hundreds of power plants. No, I don't carry all that in my mind.

Q. You don't know without reference?

A. I think it is probably 13,000, but I will look it up. It is reported as 13,200.

Q. That electricity at the South Amboy plant of the Jersey Central is generated at 13,200 KV, is that right?

A. Yes, sir.

Q. Then what happens to it?

A. Well, are you concerned with all the output or that output that goes to Mechanic Street?

Q. Let us confine ourselves to that.

A. It is stepped up.

Q. I want to know about the meters and transformers.

A. It is transformed.

Q. Would you tell us this,—

A. (Interposing) Beg pardon?

Q. Tell us about the meters and transformers and trace this electricity until it comes to Mechanic Street, if you are familiar with it.

A. The transformers, I think, are located at the plant. I will verify that if you want me to do it from the records. The meter for delivery of power to Mechanic Street is located there.

Q. Just a moment.

A. Watt hour meters.

Q. Do you know where the electricity is metered that is supplied by Jersey Central to Public Service Electric and Gas Company?

A. I can give you that exactly, but as I remember it I think it is at the power plant or substation there, I mean.

Q. The South Amboy?

A. Yes, and that it receives at Mechanic Street I

think is metered at the Mechanic Street Station.

Q. Now when the electricity taken in at the Mechanic Street Substation coming from the South Amboy plant is received, what is the voltage at which it is received?

A. It is reported 26.4.

Q. 26.4?

A. We will be exact, if you wish, from our records here. We have it here somewhere, Mr. Paxson. I will be glad to supply it if you give me time.

Jersey Central Power and Light Company's report shows this voltage to be 26,400.

Q. That is what it is taken in at the Mechanic Street plant?

A. No, I didn't say that.

Q. That is what I ask you.

A. That is the rate of voltage on the line. It probably, after it leaves there, if it leaves 26.4 it probably will be a little lower at the Mechanic Street Station.

Q. I wasn't dealing in fractions.

A. There will be a difference between the voltage as it leaves the substation at South Amboy and at the point received at Mechanic Street, where it will be a little lower.

Q. We start out with this electric energy being generated at 13.2 and it is metered at 13.2 at the South Amboy plant, isn't it?

A. That again I will have to refer to, whether it is sold on that basis or 26.4.

Q. You don't know?

A. I don't remember, no, but I have been over that and the contract will disclose it. The contract refers to 26,400 volt metering equipment.

Q. Where is that?

A. Wait a minute, that is the Mechanic Street end. Wait until I find the other end. The contract in item 4

refers to such 13,200 volt meter equipment at South Amboy generating station.

Q. Then it is metered at 13.2?

A. That is correct.

Q. When it is supplied to Public Service Electric and Gas Company?

A. That is right.

Q. Then it must be transformed?

A. That is correct.

Q. And where are those transformers?

A. As I recall it they are located just outside the plant there on the ground.

Q. You have examined the line, have you, from the Jersey Central Power and Light to the south bank of the Raritan River?

A. I looked over it, Mr. Paxson, and saw it. I didn't make any inspection of the line to determine its condition or anything of that sort.

Q. Do you know how long that line is from the South Amboy plant to the south bank of the Raritan River?

A. I do not know whether the map discloses that or not, but trusting to my memory, and standing in the power plant there I asked that question I think from the dispatcher or operating engineer and they—

Q. (Interposing) You don't really know then, do you?

A. I do not know the exact length, but I think probably we have that in our records here, somewhere.

Q. We will pass that question if you don't know.

Now, Mr. Grimsley, I believe you testified, and correct me, if I am wrong, that Jersey Central Power and Light did not furnish any firm power to Public Service Electric and Gas Company, that is right, isn't it?

A. I don't think I made that statement; no, sir. If I did—

Q. (Interposing) Do you know whether if does or not?

A. I think by the records it has, yes.

Q. We are using again firm power which means called for by contract. Does Jersey Central Power and Light supply any firm power to Public Service Electric and Gas?

A. I think you have made a very different question. Not by agreement. They are not tied to deliver firm power.

Q. Do you know what kind of power has been furnished to Public Service Electric and Gas by Jersey Central?

A. It is supplied from time to time on agreed price basis, as I understand, the contract provides, the record contains the provision, I think, I again repeat, it is performing a substantial firm power service.

Q. I didn't ask you that at all.

A. You asked me if I knew what they had delivered. That is my opinion.

Q. We will approach it from another way then. Do you know what economy flow is?

A. That noise gets me.

Q. Do you know what economy flow is?

A. Yes, as a generally accepted term. That again ought better be defined.

Q. You define it.

A. This case. I understand what you mean, I think. Yes, I will answer it that way. I think, that is the power Public Service received from Jersey Central for certain periods at a certain price, when apparently that price is a little less than that which the Public Service could generate it or procure it for resulting in a cheaper cost of power to the buyer. Also there is another advantage to the seller, but I will not go into that unless you see fit and care to.

Q. What is emergency power?

A. There isn't any generally accepted definition even in the Act itself. The word is used, and I don't believe the

lawyers will even agree on that. It is generally used, I would say, in case of breakdown or power plant failure or some part of the transmission line failure which produces an emergency unforeseen. There is where I draw the line. Some have elected to carry the meaning of that word to this extent, that I may wish to take out a generator or boiler for repair, schedule it and call on you for power and call it emergency power. Some have carried it to that extent. I don't agree with that.

Q. You are familiar generally with the contract between Public Service and Jersey Central?

A. I would say I am. I have read it and passed it to others and used it for study. I may add I literally study hundreds of these. I do not retain them, but at the time I am making use of them and refer to them in the record I am making a study of them.

Q. Aren't we making use of them now? Didn't you refer to it in your testimony yesterday?

A. Yes, that had all been prepared carefully.

Q. Isn't it a fact that contract only calls for emergency power?

A. It speaks for itself. We can determine that. I don't think it was related to emergency power.

Q. It does.

A. Emergency power only?

Q. That is all the contract provides for. If you don't know, that is all right.

A. I can very easily determine that. It is no difficult thing.

EXAMINER SPENCER: I suggest that you proceed with the examination and let the question be examined later unless it prejudices your case, Mr. Paxson.

MR. PAXSON: That is all right, but so my chain

of thought won't be broken, I would rather have the answer now.

EXAMINER SPENCER: All right, we will just wait.

THE WITNESS: It is a very lengthy contract. I do not want to in this brief time give you my opinion of this entire contract. It is impossible. The services to be rendered start in the event of breakdown. It may be that is all the service this contract provided for as such. If that is true, then the way it is operated is very different.

BY MR. PAXSON:

Q. In your opinion?

A. No, as a matter of fact, of record, very different, daily delivery.

Q. Did you study the operations of the plan, did you stay there any time at the South Amboy plant and see how it was operated?

A. In a general way. I studied the records.

Q. Just the records. You don't know how the men operated?

A. No, I don't care anything about the men. I read this, the operation of it. A man doesn't need to spend all his time in a power plant to be familiar with the operations of it.

Q. Do you know how many times emergency power was taken under that contract for the year 1937 and from January 1, 1938 to March 14, 1938?

A. Oh, no, I don't know that offhand.

Q. You don't know?

A. No.

Q. You don't call that part of the operations?

A. I do know how much power they delivered each day during that period.

Q. You don't know whether emergency power or economy flow?

A. I wasn't concerned so long as it was energy sold and delivered over the line.

Q. If it flowed over the line? That is what you really mean technically there are different kinds of power.

A. Beg pardon?

Q. There are different kinds of power. Engineers talk about firm power, and economy flow and emergency power.

A. All kinds.

Q. They are different classifications.

A. We don't all agree.

Q. I don't suppose engineers agree any more than lawyers agree. You may not agree as to what is emergency or what isn't, but there are those three different kinds, aren't there?

A. There are several kinds, and after reviewing several hundred contracts, I find in more recent years when a term of that kind is used in the contract it is well defined because there have been many lawsuits and misunderstandings because those general terms were accepted in the earlier days and got in two different meanings. I am giving you that not to delay answering your question, but that is a matter of information. I would not write a contract and set forth economy power, firm power as such, without defining them. It would lead to misunderstanding. I find contracts in recent years define those things.

Q. Aside from technical definition, contractual and legal rights, don't substation operators, particularly operating men, draw a clear distinction between emergency power, firm power and economy flow?

A. Absolutely no.

Q. They didn't in the days you were in the plant, 1915 to 1927?

A. There weren't so many in use then.

Q. Maybe that is the reason for your answer.

A. No, I think, Mr. Paxson,—

Q. (interposing) Actually you don't know anything about the operations of the South Amboy station except you know quantities of kilowatt hours that flow over a line, is that it?

A. Oh, no.

Q. You can't distinguish between the types of power known by the men who really operate those stations?

A. Your question is very involved.

Q. All of your testimony—

A. (interposing) I can answer your question. I didn't understand your question. I would ask you to rephrase that.

Q. Let me put a question very simply. At least I will try to put it simply.

Your study of the operations of South Amboy Station didn't go so far as to determine to what extent emergency power was supplied or to what extent economy flow was supplied, offhand, you don't know?

A. As a matter of record there are company records. I do not know.

Q. You don't know?

A. No, wasn't interested in it, wasn't interested in that in my studies. No occasion for it. It was how much energy was delivered there. Now out of my interest in power plants I did go over the equipment and had a pretty good understanding of it and could take the reports again and have a good understanding, but what they were selling this hour or the next hour I wasn't concerned with that. It was the constant flow of energy which the records support.

Q. You were just concerned about the flow of energy?

A. I am not concerned about the plant: I have built and operated them. Operated them as plant engineer.

Q. I ask you again if you know what economy flow is?

A My God!

MR. McALLISTER: Mr. Examiner, I want to make one comment, if I may, that that term is defined in the contract and that determines what economy flow is.

THE WITNESS: Why certainly.

MR. PAXSON: Are you speaking as an engineer or as a lawyer?

MR. McALLISTER: I am speaking—

MR. PAXSON: (interposing) I am cross examining the witness.

MR. McALLISTER: I am addressing myself to the Examiner and I am suggesting that if the contract does define it that determines what it is and if the cross-examination follows that line it will be feasible, but if it barges in the open and he defines it different to the definition in the contract the answer has no relation to the subject matter of interchange or delivery of power over those lines.

EXAMINER SPENCER: My recollection is—

MR. McALLISTER: (interposing) Isn't that correct? Mr. Paxson don't you agree with that?

MR. PAXSON: I do not.

EXAMINER SPENCER: That question has been asked once before, has it not?

MR. PAXSON: I don't think I got an answer. He said there were various definitions. I am trying to get down to what substation men and practical men call economy flow. They apparently know, but technical men don't.

THE WITNESS: You can get five different definitions if you put five men on the stand here. If you

give me time I can probably find five different definitions of economy flow or economy power. I don't know of any standard.

EXAMINER SPENCER: I think that answers your question. There is no standard definition of economic flow.

BY MR. PAXSON:

Q. What is incidental power?

A. Another one of those terms.

Q. You can't define that?

MR. McALLISTER: Mr. Examiner,—

MR. PAXSON: (interposing) This man is an expert.

MR. McALLISTER: When it comes to a contract—

EXAMINER SPENCER: (interposing) This is cross examination. I don't understand the examination relates to any particular contract at this point.

MR. PAXSON: I have already brought out there was nothing in the contract—

EXAMINER SPENCER: (interposing) There has been testimony to the effect there has been current flowing over these lines. I think the proper inquiry may be made as to what kind of current goes over that line on this cross examination. You may proceed, Mr. Paxson.

THE WITNESS: I think I would like to say here that the energy that is being delivered by the Jersey Central to Public Service could not be regarded as emergency power. I don't think it possibly could be. Emergency power,—now if you want me to go back to the definition.

BY MR. PAXSON:

Q. We are talking about incidental power.

A. Incidental power is another one of those terms there is no standard definition for. If I were using it in a contract I would define it. It is the only safe thing to do.

EXAMINER SPENCER: Proceed.

BY MR. PAXSON:

Q. Do you or do you not know whether all of the power flowing over the line between South Amboy station and Mechanic Street Substation is either emergency, economy flow or incidental power?

A. You will have to broaden that question.

Q. I am asking you whether you know or don't know?

A. I can get two or three different interpretations of the meaning of that question. Now as to what the parties to this contract call it, I don't know that.

Q. You said you know that certain amounts of power are delivered?

A. Yes, sir.

Q. I am taking exception to the use of the term delivered.

EXAMINER SPENCER: You would not take exception to it if you were using it, would you?

BY MR. PAXSON:

Q. I am now asking him does he or does he not know whether all the power that flows over this line is emergency, economy flow or incidental power. Now he can yes or no.

A. No, I can not.

Q. You don't know?

A. No, I didn't say that. I told you what I believed it was.

Q. Well, I don't care about the belief.

A. You are getting terribly involved.

Q. You have come in here and given a lot of expert testimony.

A. Yes, sir.

Q. And gave a lot of data. I want to see whether you really have studied this plant and know something about this operation.

A. You put an expert question and I will answer it the best I can. It is my desire to help you.

Q. I am trying to get the facts because grave legal consequences may flow therefrom. You don't know?

A. I don't care what they call it or bill it, no.

Q. All right, that is all I want to know on that, then.

EXAMINER SPENCER: Proceed.

BY MR. PAXSON:

Q. Are you familiar with the Atlantic Street Substation of the Staten Island Edison Company?

A. No, sir; I only know from records.

Q. You only know from records?

A. That is correct.

Q. Do you know what type of power Staten Island supplies to Public Service Electric and Gas? Is it firm power?

A. I would have to refer to the contract, Mr. Paxson.

Q. But you don't know at this moment without reference?

A. Not offhand, no. Well, in the first paragraph it starts off and says shall continue to be interchanged, and I will go on down into the contract: From the Staten Island Edison Corporation I read into the record yesterday a statement as to capacity now.

Q. I am not asking that.

A. Wait a minute.

Q. As soon as I ask you a definite question, Mr. Grimsley, you want to give me a speech. I will never get any kind of a record here if I have got to listen to general talk.

A. I want to assist you all I can, Mr. Paxson.

EXAMINER SPENCER: All right, proceed, Mrs. Grimsley.

MR. PAXSON: All right. I know you do.

THE WITNESS: This contract refers to emergency power, to economy energy and incidental energy.

BY MR. PAXSON:

Q. Those terms—

A. (interposing) Were used in the contract.

Q. Are in that contract, but they don't mean anything to you?

A. No, not as such.

MR. PAXSON: Now, if the Commission please, I suggest we recess for the day. I have an appointment with Mr. Koplowitz and I have to go back to my hotel to get some papers before I meet him.

EXAMINER SPENCER: Shall we recess until 10 o'clock tomorrow morning?

MR. PAXSON: Ten o'clock.

(Whereupon, at 4:40 o'clock p. m., the hearing in the above-entitled matter was recessed until 10:00 o'clock a. m., Thursday, September 29, 1938.)

Washington, D. C.,
Tuesday, September 29, 1938

The above-entitled matter came on for hearing, pursuant to adjournment, in Room 1201, Hurley-Wright Building, 1800 Pennsylvania Avenue, N. W., Washington, D. C., at 10:00 o'clock a. m.

Before:

Carroll B. Spencer, Trial Examiner.

Appearances:

As heretofore noted.

PROCEEDINGS

EXAMINER SPENCER: The hearing will come to order. When we recessed yesterday Mr. Grimsley was on the stand, I believe, on cross examination.

Mr. McAllister, do you have a copy of yesterday's record?

MR. McALLISTER: Yes, I do.

EXAMINER SPENCER: May I see it?

MR. McALLISTER: Yes, sir.

EXAMINER SPENCER: You may proceed, Mr. Paxson, with your cross examination.

Whereupon

A. H. GRIMSLEY

the witness on the stand at time of adjournment, resumed the stand and testified further as follows:

Cross Examination (continued)

BY MR. PAXSON:

Q. Mr. Grimsley, I would like to take up with you this morning, the first thing, Exhibit No. 1.

Have you got Exhibit No. 1 before you?

A. Yes, sir.

Q. Now, Mr. Grimsley, will you tell me again just how this map is prepared? I don't know that you have ever told me. I would like to know.

A. It was taken from the maps of the respective companies which they filed with the Federal Power Commission.

Q. And I thought you stated in answer to a direct question by Mr. McAllister that it was taken from the maps furnished by the various utilities together with their annual reports to the Federal Power Commission.

In other words, what I am trying to get at is this map a cross-patch work, composite picture of a number of maps submitted by different utilities in the United States, of course, within this delimited area, plus data you pulled out from their reports to put on the map?

A. Well, it is just what I stated before. These lines, location of power plants, voltages of lines, and so on, was taken from the maps of transmission lines, and substations and power plants that have been filed by the various companies with the Commission. They are official maps.

Q. But someone takes those maps and makes up a map of his own? I just want to know.

A. That is correct.

Q. It purports to be prepared by the Bureau of Engineering of the Federal Power Commission. I have no doubt that is true.

A. That is correct.

Q. You are not endeavoring to show here any of the companies outside of New Jersey as to their area and territory, are you?

A. Oh, well, only so far as this system network I was referring to, the important connections.

Q. What do you mean by this system? You are not talking about the Jersey Central Power & Light System, are you, by any chance? That is the label on the map.

A. Yes, I meant to include, and there is included that part of the Jersey Central Power & Light Company that was being studied, which is a big part of this large network.

Q. You mean the power pool we discussed yesterday.

You raised some question with me yesterday, Mr. Grimsley, and I will admit you put some doubt into my mind as to whether or not you had used the words interconnected system. Reading the transcript last night I found you had used them. I don't know whether you have read the transcript or not, but if you object to my using them I will try to use something else.

A. Well, it is the interconnected system which in my testimony I referred to back in 1927 when these three major companies deemed it advisable and wise to connect up their facilities with a heavy transmission line. I believe it was one of the first 220 KV lines constructed in the East, heavy transmission, which gave them the advantage of such economies, use of power plant facilities, such as I read into the record from the contract or agreement yesterday afternoon.

Q. I don't want to take you all over that again, Mr. Grimsley.

When you talk about interconnection, this map is labeled principal lines and plants of Jersey Central Power & Light Company and interconnected systems. Of course the great, big interconnected system is this power pool you have labeled and referred to where we have to put the Jersey Central & Light Company's name on it as though that was the one that controlled the whole show, the orchestra leader. I think you gave us a little description of everything going into and keeping in step.

There isn't any reason for labeling this Jersey Central Power & Light Company an interconnected system.

A. I think so.

Q. Is the Jersey Central the orchestra leader you referred to?

A. A very good reason which I shall try to explain to you. These three major systems form really the backbone of this set-up. Now by their agreements with each of the three large companies, it makes these other companies

or draws these other companies into a large power pool. A second agreement, a third agreement can be two or three steps from the major ranking system. Yet, they have seen fit to connect their facilities and therefore they become a part of this large pool, or the pooling of these facilities of the larger companies.

Q. You now class it all a pool?

A. Sir?

Q. Are you still insisting Jersey Central Power & Light Company—now you are an expert?

A. Yes, sir.

Q. Are you still insisting Jersey Central Power & Light Company is a part of what is commonly known by engineers and is understood by lawyers and everybody in the electric utility business as a power pool?

A. I meant to make it very clear, as it is appearing, supported by the records we studied, is a part of this power pool.

Q. That is your opinion?

A. In my direct testimony I showed that they carried part of one of the major company's annual peak load, using its facilities to do that to the extent of 9,000 KW, so it becomes a part of this large pool. This pool can be extended on further westward through Pennsylvania and south through Maryland.

Q. Although they have no contractual relations with members of the pool?

A. But the respective members of the pool by their connections and contracts bring in the other utilities and they become a part of the major power pool. They all operate in synchronism.

Q. All right, we will get to that. I want to talk about this map a little further and take it up in more detail.

Just what is your purpose in putting in this map? This is not supposed to be in any sense technically cor-

rect, but is supposed to paint a picture? I just want to get your idea.

A. To give a very good understanding of this network, the colors were used to distinguish the various areas that these companies served in New Jersey, to give all who are interested in this a very good understanding of the network I was discussing. That is what we had in mind.

Q. In other words, the important thing where these black lines show electrical lines you want to show a general tie-up?

A. Yes, and location of the power plants.

Q. I merely ask you. I just wanted to see to what extent they could be relied on and what the purpose was, if it was a general picture trying to give your impression of how these lines are, or the impression of the men who drew it, that is one thing.

It does have a legend that you presume to give voltages. I presume unless I take up this matter the Commission may be inclined to take this as correct.

Now you have the map before you?

A. Yes, sir.

Q. You have a black line between Perth Amboy and South Amboy showing an interconnection. That is right, isn't it?

A. Yes, that is correct.

Q. Compare that black line with the legend and tell me what the voltage of that line is as shown by the legend.

A. The heavy black line on the legend shows a 220 KV line and they are so designated.

Q. I don't want to quarrel with you and I hope—

EXAMINER SPENCER: (interposing) Don't argue with the witness and the witness don't argue with the attorney. Please ask questions and answer them.

THE WITNESS: I am trying to answer. There was a 132 KV line.

MR. PAXSON: Will you read the question? I want to get this in,—

EXAMINER SPENCER: (interposing) Read the question, Mr. Reporter.

(The reporter thereupon read the pending question as recorded.)

BY MR. PAXSON:

Q. If you want me to explain that, I will. I don't want to confuse you. You are an engineer, and I want you to take this map, look at the map and look at the line between Perth Amboy and South Amboy and tell me what the voltage is. I don't want you to describe everything else.

A. The legend very thoroughly states there that lower voltage circuits, the voltage is not given below that of 66,000.

Q. Don't you understand, Mr. Grimsley?

A. I thought I did and I think I answered your question.

Q. I want you to read this map.

A. This map does not state the voltage of that line.

Q. It doesn't, then the legend doesn't mean anything, not over your electric line voltage, 220, that doesn't mean anything?

A. It means there is a direct connection there, yes.

Q. Again I ask you to look at the black line showing the interconnection between Perth Amboy and South Amboy without any reference to any knowledge you may possess, and tell me what the map indicates as to voltage.

A. Shows these systems are connected by transmission line, but does not show the voltage. The idea was to cut out all of the details not concerned with small lines. In other words, it would be almost impossible to show all

the transmission lines and their voltage on a map of this scale.

Q. Then you don't hold any brief for the accuracy of this map, is that what you mean?

A. No, I do not mean that. I mean it shows definitely.

Q. It might be 220 or 110?

A. No, if it were that, it would be so labeled.

Q. You told me it wasn't.

A. It says lower voltage circuits there are indicated by this black line.

Q. This is just a question of eyesight?

A. Yes. I confess I don't know what you mean.

Q. Mr. Grimsley, you can certainly read a map. I know you can. I think you make difficulties out of simple problems, always afraid I am going to lead you into something but I merely ask you to interpret this map. I am perfectly satisfied.

A. I did.

Q. I am trying to bring out inaccuracies.

MR. McALLISTER: I think he has said it is not an inaccurate map. I think you are trying to argue with the witness and I don't see any necessity for pursuing questions when the witness has already answered.

EXAMINER SPENCER: Proceed, Mr. Paxson.

MR. PAXSON: I insist on bringing this out, what this map shows the voltage to be.

EXAMINER SPENCER: You may ask questions pertaining to the map.

BY MR. PAXSON:

Q. If you tell me this legend means nothing I will drop both questions.

EXAMINER SPENCER: We won't ever get a record made if we just argue about it. If you ask

questions I will see that he answers them.

THE WITNESS: I have stated—

EXAMINER SPENCER: Just a moment, Mr. Grimsley, let him ask you the question first.

MR. PAXSON: All right, Mr. Examiner.

EXAMINER SPENCER: Proceed.

BY MR. PAXSON:

Q. You have the map before you. You see that dark line between Perth Amboy and South Amboy which shows an interconnection?

A. Yes.

Q. I am not quarreling that shows an interconnection.

A. Yes.

Q. What is the voltage of that line as shown by the legend on this map?

EXAMINER SPENCER: Can you answer?

THE WITNESS: I have answered twice the voltage is not shown on this map.

BY MR. PAXSON:

Q. Then, Mr. Grimsley, these lines which are drawn on this legend with certain characteristics are to be discounted and not part of this exhibit?

A. Not in the least. They were supported by direct testimony yesterday and upon cross examination. There is in the record on several occasions the voltage of that line as taken from the Jersey Central's own report. It appears in the record several times.

BY EXAMINER SPENCER:

Q. Mr. Grimsley, the size of that line about which he is asking you, now, does not show the voltage according to the legend? In other words there is nothing in the legend to indicate the voltage of that line by the size of the line itself?

A. That is correct.

BY MR. PAXSON:

Q. Then this second line on the legend with the figures 132 over it, reading 66 KV circuits to 132 KV, figures indicates thousands of volts, that just means nothing?

A. It means just what is shown there. It says 132 and it says 66 and is so labeled on the map.

Q. All right. If you will compare that line No. 132 with the black line between Perth Amboy and South Amboy they are exactly the same, aren't they? Would they not make any reasonable man think that interconnection was anywhere between 66 and 132?

A. I don't think any engineer would misunderstand that, Mr. Paxson, because the voltage is not labeled, the voltage shows below 66,000 volts of such lines down to 22,000, and are shown the same way.

BY EXAMINER SPENCER:

Q. Mr. Grimsley, let me ask you, the line from South Amboy to the Raritan River is marked 66,000. That line is supposed to correspond with the line in the legend that has 132 over it, is that correct?

A. That is correct.

Q. Would it follow any line on the map the same size as the one that has 132 over it would be a line of 66 to 132?

A. No.

Q. That would not necessarily follow?

A. No.

Q. In other words the legend doesn't necessarily mean the lines on the map which appear to be the same size as those in the legend have the voltage indicated by the line in the legend?

A. Not necessarily.

Q. Unless marked?

A. That is correct.

EXAMINER SPENCER: Is that satisfactory?

MR. PAXSON: Yes, that is satisfactory to me. If anyone were studying the map it would indicate a 66 KV interconnection and Mr. Grimsley has already testified it was quite different.

EXAMINER SPENCER: All right, proceed.

BY MR. PAXSON:

Q. In cases where the voltage is indicated on the map in figures, are we supposed to take that as authentic?

A. That is my understanding. There may be errors. There may be.

Q. Do you know the voltage from South Amboy to Whippany in New Jersey? What voltage is shown on the map here?

A. That is one that is marked. It is shown, the northern part of the territory is 33 KV and I am inclined to think that there is a 66 KV line running up there. We can take their official map and clear that up for the record.

Q. I am perfectly satisfied if you will tell me, Mr. Grimsley, that you don't want the Examiner and the Commission to take these indicated voltages as correct and accurate. I am perfectly willing to drop the whole matter. I don't want to delay and waste time, but if you say they must take it, I must show the inaccuracies, as I know there must be.

A. I will be delighted to collaborate and cooperate and if there are any errors, correct them.

The map submitted by Jersey Central Power & Light Company of electric transmission lines with revision dates brought down to February 17, 1938, indicate two circuits of 66 KV from South Amboy to the Whippany plant. The report, F. P. C. No. 1, in which all transmission lines are supposed to be listed, does not support that all the way to the Whippany plant. There is shown from South Amboy

to Chatham, 66 KV, and to Cheesequake, and from Chatham to Delaware Lake Substation, 66 KV, from Morristown to Whippany, 66 KV, and Summit to Whippany 66 KV. I believe with more time, this list here of transmission lines may support the 66 KV line shown on the map from Chatham to Whippany by successive districts or divisions. They seem to be shown here in the report.

Q. As I understand it, this map submitted by Jersey Central is the map you used in making one part of this composite picture and shows that the voltage is 66 KV from Whippany to South Amboy, is that right?

A. It is there.

Q. And you are not sure whether the report submitted to which you refer supports the map or not? Is that your conclusion?

A. I do not like to reach a conclusion on short time.

Q. I am saying you are not so sure. You have not reached any conclusion.

A. No. I might say I am not sure now but what there might be some 33 KV lines in there, as is shown and the 66 may have been omitted. I don't know the situation until we check it up, but in any event the records show they are physically connected with the transmission line, the two sections referred to, served by the company in New Jersey.

Q. With that statement I presume I will have to explore a little further. I was thinking I was going to drop this thing.

You have no doubt this is a 66 KV line, but the figures 33 are incorrect?

A. May I make my position a little clearer in answering your question?

Q. You are certainly entitled to answer the question. Go ahead.

A. As I stated before, I consulted this map, and I was over part of this territory and I was of the opinion

I recalled the 66 KV line, and that has proved to be correct. I am not sure, however, but what the 66 KV line on the official map may have been omitted here in some places. There may, in other words, be 66 and 33. That is the point I want to make clear, but I think we can determine that in a very few minutes from these records.

MR. PAXSON: Mr. Examiner, I think this is quite important. I must have the physical facts if we are going to determine whether we have an interconnection, an interconnected system. It may seem tedious, but we have a lot of engineering theory propounded and offered. I am trying to bring out the facts.

EXAMINER SPENCER: You may proceed.

BY MR. PAXSON:

Q. This, as you say, from your own examination and physical inspection, you know there is a 66 KV line from Whippany to Perth Amboy, is that correct?

A. Yes, sir.

Q. Do you know from your inspection whether the 66 KV line in question is directly connected to any other electric system, or is it not?

A. I use 66 there.

EXAMINER SPENCER: (interposing) He said do you know from your physical examination and inspection whether the 66 KV line in question is directly connected to any other electric system or not.

BY MR. PAXSON:

Q. That is directly connected to any electric or operating system?

A. I do not believe there is unless it has happened, unless it has been constructed since I was there, and I had the understanding as the agreement I read yesterday indicated, that probably the 66 would be extended to Boon

ston or West Wharton to strengthen the tie-up with the New Jersey Power & Light Company.

Q. Now directing your attention to the top of the map, the line from Peckville to Wallenpaupack, what is the voltage of that line? Do you find the place I am referring to?

A. I haven't found it.

Q. Do you know where that interconnection is? You have the word "Scranton" and "66 KV," and to the east of that the word "Wallenpaupack," that line is shown at what voltage?

A. 110 KV.

Q. Do you know whether that is correct or not?

A. I do not.

Q. You don't know that is a 66 KV line?

A. I do not. That can be verified very quickly from the records from which this was taken.

Q. Now going a little further and taking the line from Hauto to Sigfreid, what does that map show the voltage to be?

A. This shows 110 KV from Hauto to Sigfreid.

Q. Do you know that system over there?

A. I have been over part of that, yes, but I don't know whether these voltages are correct. I can verify it from the company records.

Q. You don't know that is a 66 KV line?

A. I do not, but it can be easily determined. The records can show that from the company records.

Q. Mr. Grimsley, what do you mean by an interconnection?

A. A physical connection of transmission facilities.

Q. Do you distinguish between connection and an interconnection?

A. I don't see any difference.

Q. You don't distinguish between them?

A. I do not. The interconnection is more generally used.

Q. Yes.

A. To indicate a physical connection.

Q. So when you talk about an interconnected system it may be connected, but not necessarily interconnected? I mean, you just use the term generally.

A. I don't mean to reach the conclusion that you have just stated there. I think they are used occasionally synonymously, or meaning the same thing.

Q. Now, Mr. Grimsley, I assume this was an error, but I note in the record that you made the statement the Raritan River, that is on page 24 of the record, you made the statement that the Raritan River and Camden plants of 60 and 50 thousand kilowatt capacity respectively, are the main sources of energy for this company, and you were referring to the Jersey Central. You don't know of any Camden plant Jersey Central owns and operates, do you?

A. Camden plant?

Q. Camden, you know that Camden is

A. (interposing) Jersey Central has no plant in Camden.

Q. I was born there, and I know there isn't. It is too near the line. I don't believe you even said so and I would not want the record to show it. It is too near the state line.

A. If you will permit me, Mr. Paxson, I can look at my record of direct testimony and clear that up. I certainly didn't mean to say that because they are not in that area.

Q. I think it was either a slip of the tongue or an error of the stenographer. It is wrong.

A. Yes.

Q. And Jersey Central has no plant located in Camden, New Jersey?

A. It doesn't show any and I am sure they haven't such a plant.

Q. Now then, Mr. Grimsley, in talking the other day about the interconnection of Jersey Central Light & Power Company you stated, you referred to the South Amboy interconnection and then you said that the second important interconnection between these two systems, meaning Public Service and Jersey Central, is at Wrightstown and New Lisbon, New Jersey. There is no interconnection at Wrightstown and New Lisbon in any technical sense, is there? If you were just using it synonymously, I don't care.

A. The word important as was used was not intended to convey magnitude, but they are important connections because, as will be observed from the map, that this area served there is dependent upon a single transmission line from Hightstown, a distance of considerable mileage. Should that fail then these connections are very important. The customers will continue to be served there, but it was not intended to convey it was a big operation such as in the area of South Amboy.

Q. You were talking about a very broad brush. You were talking about three important interconnections.

A. I regard the service to a small community as being important.

Q. When you were talking about the broad brush of this gigantic power pool it fades into insignificance, doesn't it?

I don't think you answered that last question.

A. There is a little discrepancy between two reports of Jersey Central. In the form 64 the transfer points are shown as New Lisbon and Wrightstown. There is in the annual report, F. P. C. I—

Q. (interposing) I just want to know what these reports are. Are these both reports of Jersey Central?

A. Yes. In this latter report the points of receipt are shown as Comical Corners and Wrightstown.

Q. Have you been over that line?

A. Beg pardon?

Q. Have you been over that line?

A. No, I was not over that section.

Q. So you have to take your information from the reports and don't have any personal knowledge of it?

A. Yes. However, I did make this study at the Burlington plant of the Public Service as shown in the exhibit and this territory, and discussed the feeders and lay out there between Burlington and Camden, the connection with the Philadelphia Electric, and this particular area we are discussing, but I didn't get nearer to Wrightstown than Burlington, but was shown their maps which showed these lines out to Wrightstown and that area.

MR. PAXSON: I might say for the Examiner's attention I am glad that Mr. Grimsley brought out the fact when he referred to these company reports filed with the Commission for one purpose there are apparently discrepancies between them and it shows the value of such testimony.

MR. McALLISTER: This is all argument.

MR. PAXSON: I think I have a right to bring that out. We don't follow the strict rules of evidence here.

MR. McALLISTER: There is an appropriate time to make whatever argument you care to showing that all the witnesses in one report testify the connection is at Wrightstown and Comical Corners, and the others Wrightstown and New Lisbon.

EXAMINER SPENCER: The Examiner heard the witness and you will have an opportunity to read

the record. You may proceed with your cross-examination.

MR. PAXSON: Pardon me?

EXAMINER SPENCER: You may proceed.

BY MR. PAXSON:

Q. I still want to confine our attention for the time being to this connection. I call it a connection. Probably you agree with me.

Does the term interconnection, I get back to my original question, appeal to your scientific mind as having any technical significance different from connection?

A. Well, as the various companies report this data and designate these points—

Q. (interposing) Pardon me, I don't think the report has anything to do with it. If it doesn't mean anything, say so.

A. For this discussion I don't elect to make any difference.

Q. All right, how does power flow, in what direction through that connection?

A. The Perth Amboy?

Q. No, I am talking about this connection loosely designated at Wrightstown and New Lisbon, although I think the real point is Conical Corners. There is a connection there?

A. Yes.

Q. We agree with that?

A. Yes.

Q. Both sides agree?

A. Yes.

Q. I am asking whether there is any interchange of power over that line there?

A. My testimony showed I think for the year 1937 that the power is there purchased by the Jersey Central

and I do not recall that they have delivered any back to the other company. Of that point, however, I will not be sure, but could make a definite statement by looking at the reports given. That is my recollection.

Q. That, I think, was your testimony and you stated correctly it only flowed one way?

A. Yes, sir.

Q. And it is because I, and some engineers to whom I have talked to, do give a technical significance to the term interconnection, but I wanted to bring out clearly the power only flows one way.

A. I know of no reason why it should not flow the other way. There may be some, but the data we have here do not show whether there is any reverse power relay, or switches to prevent that.

Q. Do you know whether if flows both ways or not?

A. No, I think it is possible.

Q. You can't say that unless you have some data?

A. Yes.

Q. You say it is possible to flow. You must know something about it.

A. I make that statement advisedly because the system is interconnected at these two points here we are discussing to the Mechanic Street Station. So, I made that qualifying statement and I see no reason why it could not flow, unless by some predetermined reason methods have been used to prevent it.

Q. But you haven't really studied that line personally in any way so you could say it could flow in both directions or not at that point?

A. I would answer that I have not.

Q. If the lines connecting at Wrightstown and New Lisbon and on up to Hightstown, New Jersey, were not operated in parallel then you would agree power could not flow over that line?

A. If normally there is a switch in that line that

is open, then it would be cut off from the Jersey Central Power & Light Company supply, its generating plant, that is obvious.

Q. I say if they were not operating in parallel or in synchronism the same answer holds?

A. Through this section?

Q. Yes.

A. Yes, that is correct.

Q. What do you mean by operating in parallel and in synchronism?

A. That is where two or more generators or two or more power plants are connected, the circuits, they are operating in what we call step, in perfect synchronism, all turning together.

Q. You mean they all turn if they run at all, but they might not be in synchronism?

A. Pardon me?

Q. They all turn in the sense of going around, but that would not be necessarily synchronism?

A. They must be in synchronism if they continue to operate connected through busses or transmission lines, they must necessarily, if they are connected, operate in step, in synchronism.

Q. Taking this connection down at Wrightstown, would we have a connection there without it being in synchronism?

A. If, as I said, those lines were open leading back up to the main system of the Jersey Central, and if you wish me to, I might express an opinion as to that line. I don't think these two systems, if the connection were open between South Amboy and Mechanics Street and this circuit down through Hightstown and Wrightstown were closed, I don't think through that small line these two systems would ever operate in parallel. If that helps you.

Q. Did you say you did make a survey of the Wrightstown and New Lisbon area or not? Did you say you did

make a personal survey of the Wrightstown and New Lisbon area or not?

A. The nearest I got there was in the Burlington plant and vicinity.

Q. If you didn't make a survey—

A. (interposing) The survey I made was from records.

Q. Yes.

A. That is correct.

Q. Now then, Mr. Grimsley, I believe you testified yesterday that the third important interconnection of Jersey Central with other electric utilities is that between its Boonton substation and West Wharton Substation of New Jersey Power & Light Company.

Where is this interconnection?

A. The map of the Jersey Central Power & Light Company shows the connection at Boonton.

Q. That is in the north central part of New Jersey or approximately?

A. Yes, sir.

Q. Do you know whether this connection has been open or closed? Is it an open or closed connection?

A. When I was there, I think in April, it was open. I did get some data there from the field man. In case of failure, one important failure there, where I think Morristown was out, the connection was used to pick up that load. The contract, as I said yesterday and the day before, indicates the intention to make some substantial or important connection there.

Q. Some time in the future?

A. Well, I am not sure but what construction has been started.

Q. You don't know whether it had or not?

A. No, I do not.

Q. Then, we don't have to discuss it. The contract is there, whether you and I agree is not important when

the Examiner reads it.

A. No, that can be determined later.

Q. Don't you know that at Boonton, New Jersey, that switch is always open except in emergency?

A. Well, I haven't definite knowledge of that, Mr. Paxson.

Q. You don't know that?

A. No.

Q. Assuming my statement to be correct, that it is always open except in emergency, then you would not call that an important interconnection with this power pool, would you, of which you speak?

A. There again the point arises, the term you have used; the emergency. Yes, I regard it as a very important connection and I believe that it will be important, and it is advisable and I think the terms of the contract have shown the wisdom of the company in that respect and it will become important.

Q. I am not interested in the future just now. I am trying to determine the public utility status of a certain company.

A. I regard it,—

Q. (interposing) Go ahead and answer the question.

A. I regard it as an important connection. If it were my property I should so consider it.

Q. I thought you told me a while ago when switches were open it didn't operate in parallel or synchronism.

A. I did. That is impossible when switches are open to operate in parallel.

Q. Let's approach this proposition in another way. Do you know how often that switch was closed, if at all in the first three months of 1938?

A. I do not know how often.

Q. Do you know how often it was open or closed in 1937?

A. No, sir.

Q. Or 1936?

A. No, sir.

Q. You don't know anything about the times or occasions or circumstances when power flowed over that connection?

A. Not times, other than as I related. I do know it did serve the Morristown area on one occasion recently. I know that only by the district manager so telling me.

Q. Morristown of course is in New Jersey?

A. Yes.

Q. In whose operating territory is Morristown?

A. Beg pardon?

Q. In whose operating territory is Morristown?

A. Why, the Jersey Central, according to the map, and I would have to check my notes on that. I think that is the office I visited where I discussed this with the district manager.

Q. Now on page 42 of the record it appears Jersey Central, it appears that you said that Jersey Central under its contract with the New Jersey Power & Light Company pays a demand charge of $2,500 per month. That isn't true. You did say as I recall it, $25.

A. I don't remember what I said but I will be glad to check it.

Q. I am not charging it is attributable to you. I just don't think you said so.

A. I don't know, but by referring to the contract we can certainly get the record correct.

Q. I really don't think we ought to waste any time over there. The contract speaks for itself. I think unquestionably it is an error.

Now then, Mr. Grimsley, it is true, is it not, that Jersey Central facilities do not cross any state line to your knowledge?

A. Its facilities?

Q. Yes, or its lines.

A. It does not.

Q. Has no line or facilities at a state line?

A. No.

Q. Crossing or up to the state line?

A. No.

Q. Now, Mr. Grimsley, you made the statement yesterday that the Holland plant or the Gilbert Station, I guess they are just two names applying to the same station.

A. That is my understanding.

Q. The Holland plant or the Gilbert Station is out of operation at certain times during the year. That is correct, isn't it?

A. Yes.

Q. You then followed up that statement with the remark for that reason, I am just paraphrasing what you said and if I am wrong, correct me, that the system has for such periods entirely depended on outside sources of supply. The record attributes that statement to you.

A. Yes, sir.

Q. What do you mean by outside?

A. Sources of supply other than that owned by New Jersey Power & Light. I think I made the exception of that little hydro plant.

Q. That is correct, yes, but that is very insignificant. You said aside from that.

A. That is what I meant to convey.

Q. By outside, you mean outside of its own facilities?

A. That is correct.

Q. It might come from facilities of some other company in New Jersey?

A. Could come from New Jersey, New York or Pennsylvania.

Q. You don't mean to imply it necessarily came from outside the state?

A. No, sir!

Q. I just want to make that clear.

MR. McALLISTER: Mr. Paxson, we now have the contracts that will enable the witness to clear up that question about the demand charge, if you care to pursue that question so it will appear at the proper place in the record, and I may say that the contracts do show that is $2,500 per month demand charge and I think that was the statement of the witness on direct and the contract supports it.

MR. PAXSON: I am not quarreling with that. If he says it is $2,500, the contract will speak for itself.

THE WITNESS: I think I said $2,500.

MR. PAXSON: I thought you said $25.

MR. McALLISTER: He said $25 and then corrected it to $2,500.

MR. PAXSON: If the contract says that, then we are bound by it.

MR. McALLISTER: That is my statement. Unless you wish to accept it I will show you the contract.

THE WITNESS: I find my statement was $2,500 per month.

MR. PAXSON: I wasn't disputing it. I just wanted to be sure about it. But I see you are quite correct from Article 4 of this contract.

MR. McALLISTER: That is the contract of February 6, 1937.

BY MR. PAXSON:

Q. Article 4 of this contract dated February 6, 1937, states that "Jersey Central agrees to sell and power con-

pany agrees to purchase firm power in certain amounts and pay demand charges of $2,500 per month."

Of course in connection with that I must also refer to the fact in Article 6 of the same contract it is provided "It is agreed, however, between the parties hereto, that the minimum charge for firm power as outlined in Article 4 shall not be made effective until a new interconnection is established between the systems of the power company and the Jersey Central."

And, there is no new interconnection that you know of, is there, Mr. Grimsley?

A. I believe that I made that statement top yesterday.

Q. I think that is correct. All right, I guess that clears that up.

Now getting back to the Holland plant, do you know when or at what periods of time the Holland plant is out of operation?

A. No, I do not.

Q. You were just giving the maximum figures for the year?

A. As the company reported them.

Q. That might be split up into a number of occasions of a few minutes each or a few hours or days?

A. That is correct.

Q. Now when the Holland plant is out of operation for emergency purposes, we will say for maintenance or repairs, does that affect Jersey Central in any way?

A. Well, I think it could.

Q. Well if the switch is open at Boonton it would have no effect on Jersey Central?

A. Yes, but it could be closed and the Whippany plant could be used and it would be good business.

Q. But you don't know if it was ever closed when the Gilbert plant was out of operation?

A. I do not know that. The company's record will disclose that.

Q. The Holland or Gilbert plant is connected with Public Service Electric and Gas Company at Roseland, isn't it?

A. That is correct.

Q. That is a pretty important station, that Roseland, isn't it?

A. Very.

Q. Now then, let's turn our attention for a moment to Exhibit 6.

You have here an exhibit which is arranged, I believe in columns with the names of companies in column 1 down the side and the other being at the top. From the use of the language there I find it difficult, and I think possibly the Commission may, as to just how to read this exhibit.

When you start with Jersey Central Power & Light Company and we go over into the column Public Service Electric and Gas Company, purchased from and sold to, I don't know whether from the use of that language Jersey Central Power and Light Company purchased from Public Service Electric and Gas 1,554,000 or whether you mean Public Service purchased from Jersey Central 1,554,000.

A. It reads across.

Q. It reads across?

A. Yes, sir.

Q. In other words the four companies listed here you go across. The use of the word purchased from don't refer to the names on top?

A. No, for example take the year 1935.

Q. Just take one example.

A. Yes.

Q. I am not making any point except to get it clear.

A. That is right. It indicates Jersey Central pur-

chased from Public Service that year 1,554,000, and sold to Public Service 56,344,000 and so on across.

Q. Now let's look at Exhibit 7.

BY MR. McALLISTER:

Q. Mr. Grimsley, I would like to clear that up. You said for 1935. You read figures for 1934. I think that ought to be straightened out so there will be no question about it.

MR. PAXSON: I agree with you.

THE WITNESS: That is true. It is the wrong column. The figures seem to be dropped to the eye, but by putting a line on it the figures I read are for the year 1934.

BY MR. McALLISTER:

Q. Otherwise your answer is correct?

A. Yes, sir.

BY MR. PAXSON:

Q. Now I want to question you about not only Exhibit 7, but about Exhibits 2, 3, 4 and 5, because in your testimony yesterday you offered them all together.

Have you Exhibits 2, 3, 4 and 5 before you?

A. Yes, sir.

Q. Mr. Grimsley?

A. Yes.

Q. On page 89 of the record you make this statement:

"And those exhibits show the operating utilities in New Jersey import as well as export energy to the adjoining states."

Did you mean to convey by that statement, since Exhibit 2 is labeled Jersey Central Power & Light Company, that these statements show that Jersey Central imports as well as exports energy to the adjoining states?

A. I would have to go back to the record.

MR. McALLISTER: Have you got that record? I just didn't get that question, Mr. Paxson.

EXAMINER SPENCER: Do I have your record, Mr. McAllister?

MR. McALLISTER: I have another copy. This is the record of the day before, Mr. Examiner.

MR. PAXSON: If you want to look at it, here it is.

MR. McALLISTER: I have a copy, but I don't see anything that coincides with what you have read, Mr. Paxson.

MR. PAXSON: May I point it out?

MR. McALLISTER: Yes.

MR. PAXSON: Here it is.

MR. McALLISTER: Is that question you are referring to and not an answer?

MR. PAXSON: He goes along with your question.

MR. McALLISTER: The way it was put, I thought it was part of the answer.

MR. PAXSON: Are you going to withdraw that question?

MR. McALLISTER: No.

THE WITNESS: What is that?

MR. PAXSON: You will have to go back and read—off the record.

(Discussion off the record.)

BY MR. PAXSON:

Q. Do you want to accept that statement as correct?

A. I don't know what it relates to. I am trying to pick up the idea in the record.

MR. PAXSON: Suppose we take a recess. We haven't had one this morning.

EXAMINER SPENCER: Before we take a recess, it is now 11:39. I think we will take a 15-minute recess and won't recess until 1:30 and have a long session this afternoon.

We will take a recess until 11:45 by this clock.

(Whereupon, at 11:30 o'clock a. m. a recess was taken until 11:45 o'clock a. m.)

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

BY MR. PAXSON:

Q. Mr. Grimsley, on page 88 of the record thus far made you referred to four exhibits, Nos. 2, 3, 4, and 5, and then you were asked the question by counsel "and those exhibits show the operating utilities in New Jersey import as well as export energy to the adjoining States"; and your answer was "That is correct."

I believe my question was or, at any rate, it is now: What do you mean by that answer? Do you mean to imply that those exhibits show that Jersey Central Power and Light Company imports from and exports energy to adjoining States?

A. Exhibit No. 2 relates to Jersey Central Power and Light transactions, that is, Jersey Central Power and Light Company energy transactions.

Q. Then, let's put it in another way. The other exhibits do not refer to Jersey Central at all, do they?

A. Then we get into difficulty because some of the other exhibits show interstate moves of energy.

Q. I think you are right on that; so that question is

not correct. I think I would better stick to my original question.

Do you mean to imply by that answer, or do you mean to state, if not imply, that these four exhibits show that Jersey Central Power and Light Company imports from and exports energy to adjoining States?

I think that requires a yes or no answer.

A. The question is too broad.

EXAMINER SPENCER: What is your answer, Mr. Grimsley?

BY MR. PAXSON:

Q. Don't you know what you meant by the answer, Mr. Grimsley, without reference to the exhibits?

A. Your question is pretty broad.

Q. I thought it was, but you said it was correct. I did not put the question. Mr. McAllister put the question.

A. But I mean to take all four exhibits—

Q. Then your answer was not correct, because all four exhibits were taken? If you want to withdraw the answer I am perfectly willing that you do so. I think it is too broad myself. That is why I brought it up.

A. We should get the record correct.

Q. Now, Mr. Grimsley, when I ask a simple question as to what an answer means I do not think it is necessary always to have to refer to a speech or something that was said yesterday. I tried to be tolerant. Possibly I let my feelings run away yesterday, but I tried to be considerate. But I think you should answer a few questions without turning to some speech or document to whose make up I don't know how many people contributed.

MR. McALLISTER: I think that is uncalled for.

EXAMINER SPENCER: Just a moment, please.

MR. PAXSON: I want it to appear on the record that he is referring to a memorandum.

EXAMINER SPENCER: Can you answer the question that is addressed to you, Mr. Grimsley?

THE WITNESS: Not in that form, Mr. Examiner. There are many transactions in those four exhibits that he is carrying with the one question.

MR. PAXSON: I think I have a right to a categorical answer.

EXAMINER SPENCER: You can answer that question yes or no and then explain what you mean.

BY MR. PAXSON:

Q. Mr. Grimsley, these four exhibits—

EXAMINER SPENCER: Just a minute. Let him answer the question.

THE WITNESS: I don't believe I understand the question.

EXAMINER SPENCER: His question is simply this, Mr. Grimsley: Is your response to the question on page 89 correct? The question is: "And those exhibits show the operating utilities in New Jersey import as well as export energy to the adjoining States," and you stated, "That is correct,"?

THE WITNESS: I think that is correct, if you want it that way.

EXAMINER SPENCER: He says that is correct.

BY MR. PAXSON:

Q. Then, by that answer you mean that these four exhibits showed the Jersey Central Power and Light Company imports energy from as well as exports energy to adjoining States?

A. I don't mean that. When you carry all four exhibits along together—

EXAMINER SPENCER: All right; go ahead and explain your answer, Mr. Grimsley.

THE WITNESS: By connecting up these exhibits as I did later, the movement of energy from one company to another, then movement of that energy from that company to another is the all-important point here that I was concerned with and am concerned with in the movement of energy from South Amboy to Staten Island. These do not connect that up.

BY EXAMINER SPENCER:

Q. Let me ask you this question: Does each of these exhibits refer to one particular company?

A. That is correct.

Q. And there are four exhibits?

A. That is correct.

Q. And there are four companies?

A. That is correct.

Q. And what you meant to say was that each exhibit, referring to one company, showed that they imported and exported, and another exhibit referring to another one, and so on through the four, and the four companies as shown by each exhibit separately as pertaining to each company import and export?

A. That is correct.

MR. McALLISTER: That is not the import of the question.

EXAMINER SPENCER: But I am asking that question.

THE WITNESS: That is not the correct sequence of the use of these tables as I intended. Perhaps I can make it clear in this way. Each one of these exhibits, with the heading of that company, shows its transactions under contract with other utilities with which it has connections and has interchanged

power; that is, each one of those. Now, it does not intend to show that the movement of energy can not take place between two companies not shown on one of these exhibits. There can be a middle link.

BY MR. PAXSON:

Q. Mr. Grimsley, let us take up Exhibit No. 2. Will you please point out to me where that exhibit shows the Jersey Central Power and Light Company imports energy from and exports energy to adjoining States?

A. The exhibit does not show that.

Q. It does not show it?

A. No.

Q. I didn't think it did.

A. It was not intended to show that, but in connection with one or the other I may have another situation.

Q. With another company there would be a different situation. I agree with you. Now, let's look at Exhibit No. 7. What does that exhibit purport to show?

A. Amount of energy produced in the State of New Jersey and the amount of energy imported from other States; in the next column it shows production, and it shows the exports, and the total of the two, and exports to other States, utilization in the State of New Jersey also.

Q. Does that exhibit in any way, either expressly or by implication, show the Jersey Central Power and Light Company imports from other States?

A. That was not the intention of it.

Q. Then your answer on page 93 was in error when you made this statement referring to Exhibit No. 7: "During every month during this period it shows the State of New Jersey received from and delivered to other States electric energy in large quantities"? That statement you think is accurate?

A. That statement I think is accurate.

Q. Then you follow it up later by saying: "I mean these companies in this network shown in Exhibit No. 1."

Exhibit No. 4 is the map which includes every company in New Jersey, at least these four.

A. The exhibits speak for themselves, that is, all of these energy transactions. Later I made another demonstration which does come back to this exhibit.

Q. You were trying to draw some inference by tying them all up?

A. Yes, sir.

Q. But the exhibit does not show the Jersey Central Power and Light Company itself exports or imports one kilowatt?

A. No.

Q. It was not so intended, was it?

A. In connection with the other. That is where we seem to get apart. Later on it is demonstrated that energy movements from South Amboy

Q. Just a moment please. You say it is demonstrated.

A. You will not let me finish.

MR. McALLISTER: I think the witness is entitled to complete his answer and not have it broken off in the middle.

BY MR. PAXSON:

Q. I didn't think I asked a question. But go ahead, Mr. Grimsley. I do not want to quarrel with you. We had enough of that yesterday.

A. At the time this was presented it was not the intention to show in here any definite amount particularly assignable to Jersey Central Power and Light Company, but later on I demonstrated that energy moved from South Amboy to Staten Island, and that would be included in this. You see they have a perfect relation to one another.

Q. You say later on you demonstrated that energy—Well, what did you say?

Will the reporter read it, please?

(The last answer of the witness was then read by the reporter.)

BY MR. PAXSON:

Q. Any energy which moves to Staten Island Edison Corporation comes from Public Service Electric and Gas Company, doesn't it?

A. They are the seller.

Q. They are the seller of the energy?

A. Yes. But it does not follow that the energy comes from sources of power owned by the Public Service.

Q. I think I follow you there. It does not necessarily follow that energy sold by one company is necessarily its own generation?

A. That is correct.

Q. Isn't that what you are saying?

A. That is correct. That makes it very clear.

Q. Is that the only instance that you have in mind of any energy flowing from Jersey Central Power and Light Company?

A. Out of the State?

Q. Outside the State. Do you know of any instance?

A. We have not definitely traced out any of them from Boonton through Pennsylvania to New York, if that answers your question, omitting Wrightstown and Elizabeth. But there is a reserve movement at times when the Jersey Central Power and Light Company was receiving large quantities of so-called dump power from Central Hudson. There may be cases and the records may prove that some of the New York energy moved there. But we have not studied that and carried it through to a definite conclusion.

Q. What you are saying is that if you made a study

of the situation you might find a kilowatt somewhere?

A. That is right.

Q. That moved to the Jersey Central which you say you could trace to the Central Hudson?

A. That is correct.

Q. As an expert engineer would you say that you can earmark a kilowatt?

A. I think that is an awfully crude question.

Q. It is a what?

A. It is a very crude question.

Q. Crude or cruel?

A. Crude.

Q. I am sorry, Mr. Grimsley. I am not an engineer, or possibly I could put the question a little better. I have heard engineers ask questions that were crude.

A. I believe I can answer your question in a way. If two plants are connected to a transmission line and both are delivering energy on that transmission line after they join, when they make their deliveries, you can not identify at that point the kilowatt hours coming from one or the other plant.

I think that answers your question.

Q. I think it does, Mr. Grimsley. We are getting along famously today.

Now, Mr. Grimsley, when you talk about a company importing electric energy or exporting electric energy, what do you mean? You have those words on Exhibit No. 12.

A. It is receiving energy over transmission facilities that may or may not be owned by it, from another company in an adjoining State.

Q. It does not imply any contract or arrangement in your mind?

A. No; not in the movement of energy in these networks. We find sometimes the contracts have little value or meaning at all. In other words, the operations are con-

ducted along substantially different lines than the contract itself indicates. They see no occasion to change the contract; they are both satisfied. But in making these studies of energy movements over State lines contracts do not have much value, if any. You have to deal with the facts relating to the movements of that energy.

Q. When you use the terms imports and exports you are really talking about movements, are you, irrespective of how they grow or what is the contractual relationship or obligation?

A. They receive energy from outside the State or deliver energy which passed outside the State. That is what is meant.

Q. Do you know of any instance where Jersey Central Power and Light Company imported any electric energy from outside the State?

A. Well, I demonstrated yesterday that Jersey Central Power and Light Company does receive energy at various times from Staten Island Edison Corporation.

Q. You are referring to that exhibit to which I made objection, of certain movements subsequent to March 14, 1938, are you not? You are referring to Exhibit No. 18, are you not?

A. Yes.

MR. McALLISTER: Will you identify the exhibit in your question, Mr. Paxson, so that there will be no question about it?

MR. PAXSON: I did in my last question, I believe.

THE WITNESS: I think you referred to Exhibit No. 18. That is right.

BY MR. PAXSON:

Q. You would not say that because of this statement that the Jersey Central Power and Light Company im-

ported any energy from Staten Island, would you?

A. Technically if that were to rest on the agency, that is, the middle agency, there may be some question. What I meant to convey is that Jersey Central Power and Light Company received some energy from Mechanic Street Substation which, in turn, was received from Staten Island. Therefore, it received energy that had been imported.

Q. That is, that had been imported by Public Service you mean?

A. That is correct.

Q. When you talk about this movement of power, isn't this movement data a mere mathematical calculation from certain statistics which you had or which you got from records?

A. I would not use the word "mere." That record is very definite, Mr. Paxson.

Q. Let us eliminate the word "mere". It is just a mathematical calculation?

A. It is more than that. It is a definite conclusion. Operating engineers know when they make computations what the results are. That is not "merely". It is carefully calculated.

Q. Now, Mr. Grimsley, in my questioning I have been trying to avoid the use of certain language both yesterday and today which would imply any legal conclusions because, of course, you are not competent to make them and it would not be competent testimony. Unfortunately, however, in scanning the record I find I did not hear some words which you used, which might have certain implications.

On page 43 of the record you make the statement: "In delivering energy to Public Service Electric and Gas Company and New Jersey Power and Light Company, Jersey Central is drawn into extensive interstate commerce transactions which take place over the boundary lines of the State of New Jersey."

You don't know, as a matter of fact, whether that is true or not in delivering energy or whether it is drawn into extensive interstate commerce transactions? You were not trying to tell us what interstate commerce is, were you?

A. Mr. Examiner, that is a very lengthy discussion prior to the question. Mr. Paxson made a statement that I am not in agreement on. I wish to make it clear I think certain sections of law that are written clearly an engineer may well interpret for himself and take his own risk, as I have many times. Some are so clearly drawn that I think my judgment would be very good on them. So in answering your question I do it with that qualification. I do not concede my judgment to interpret the law in some cases is not good or it is not my right.

Q. All right, then, Mr. Grimsley; explain your answer. We will have to go a little further with it now. You are now saying that that answer is correct, and in delivering energy to Public Service and New Jersey Power and Light Jersey Central is drawn into extensive interstate commerce transactions. What are they?

A. What are they?

Q. Yes. How is it drawn into extensive interstate commerce transactions?

A. I demonstrated that Jersey Central Power and Light Company received energy that was imported from the State of New York and that it generated and transmitted over facilities, part of which it owned, to another company, that is, the current went on through directly to another company in New York.

I also showed the time the system peak occurred on the Public Service Company's system, which is purely and clearly of an interstate nature.

Q. What was that last statement?

A. I also showed the time the system peak

occurred on the Public Service Company's system, which is purely and clearly of an interstate nature.

Q. Will you please proceed?

A. Of such peak South Amboy carried 9,000 kilowatts. I also stated that the power plants of the Jersey Central Power and Light Company were operating in synchronism with power plants located in Pennsylvania and in New York, and its frequency is controlled. The last report we had from Philadelphia, outside of the State, shows it has in a way surrendered its own control of frequency in its own system. It is not a serious matter. As it works out it is very satisfactory and economical and fine and good business.

Q. Mr. Grimsley, at any rate I think I am clear that it is your legal opinion that there are interstate commerce relations. That is what you are saying?

A. I think I have some very good opinions.

Q. Well, I asked you to explain the statement. Can you trace any power coming from South Amboy plant that goes to Pennsylvania? Do you know of any instance?

A. No; I have not done that.

Q. In your answer you brought in Pennsylvania. But you haven't any?

A. No. I haven't traced them.

Q. Mr. Grimsley, on page 113 of the record you made the statement that "To summarize the physical interconnections, the contractual relations and the interchanges of power between the several utilities," and I think you were referring to what you call a network, "make Jersey Central Power and Light Company an integral engineering and economic part of the large and extensive system."

Then you think the contractual relations are of quite some importance in determining this matter, don't you?

A. In the case of Jersey Central Power and Light

Company in connection with Mechanic Street, I do not think that contract is of any importange at all because they have, as you elected to refer to yesterday, a very efficient plant. Public Service has a plant shut down cold, right at Perth Amboy. They could not operate as cheaply as they can buy this power from Jersey Central. I think it has been a fine thing that Jersey Central can sell that power. It has probably financially been of a very substantial benefit to that corporation over a period of years.

Q. You don't know that, do you?

A. I have a pretty good understanding of that, yes, sir.

Q. What is the basis of that?

A. It is a long story, if you want to go into it.

Q. I don't want you to testify to the financial advantage of the company unless you know.

A. That follows naturally, Mr. Paxson. It follows the Jersey Central is not going to wear out its equipment and power plant and burn fuel to generate energy and put it over Public Service at less than its cost. You see, it must make a profit. Therefore, it follows that it has been of substantial financial benefit of this company.

Now, I can go further into the early history of this, if it means anything, when these negotiations were first started.

Q. Did you have anything to do with those negotiations?

A. Merely indirectly; yes, sir.

Q. Did you represent one of the two companies involved?

A. No, sir. I was conferred with, though, by representatives of the company. The facts speak for themselves anyway.

Q. Well, Mr. Grimsley, yesterday you seemed to be unable in any way to define economy power. So far as I

could gather from your answer there wasn't any such animal.

A. No; I did not mean to convey that.

Q. But today you are using the expression. What do you mean by economy power?

A. You are not giving a correct impression there, Mr. Paxson. I said economy flow in a contract, if it is not defined, I then do not know what it means, what the parties really had in mind. The records then as to how they have sold or purchased this energy would disclose that.

I also made it clear that if all of these terms you used, or many of them—stray power, incidental power, dump power, firm power, economy power. I don't see the presence of any of them in this particular transaction we are discussing. That power is flowing over there every day in the year and has every day in the year 1937 and every day this year to the last day we were there. It is carrying a substantial part of the load in that area. It is firm, just as firm whether written into the contract or not. As a matter of fact, it is delivering firm power that the Public Service is depending upon.

Q. Can you show me anything in the contract that proves it is firm or are you again just theorizing?

A. Now, I am relying upon the facts that are in the record.

Q. What are those facts?

A. That they are delivering energy over there during the important load hours, that it has carried part of the system peak and is carrying daily. Those are facts. I did not make that statement as a theory or as a guess.

Q. What do you mean by firm power? You used that expression. I want to pin you down to something. You used the expressions. When I use them you can't define them.

A. In this case, if you will mark the language, I have told you that this is operating as a source of firm power.

It is delivering it; the company is depending upon it.

Q. What company is depending upon it?

A. The Public Service.

Q. How do you know that?

A. The records show that they are receiving it; they are using it—carrying a part of its system load every day.

Q. Is Public Service entitled to any of that at any time? Can you name one minute in the day or throughout this period when Public Service was entitled to any of that power?

A. I am not concerned with whether it is entitled to it or not. It is receiving it, and I take it it is paying for it.

Q. Then don't use terms like "firm" unless you explain it to us. Doesn't firm power mean something one is entitled to?

A. If a contract were made designating firm power of a capacity to be available at certain times or at all times—I have found firm power contracts for periods of only three months and for twelve months.

Q. Where is your contract that shows Public Service is entitled to one kilowatt of this power? Have you found any?

A. The contract speaks for itself.

Q. Have you found any? Can't you answer my question? I don't like all of your speeches.

A. Well, what is your question?

Q. I have been very indulgent.

A. In contract Article II Public Service can call for it at any time it wants it.

Q. What kind of power?

A. The terms you are using are used for ascertaining costs for billing purposes. This energy goes over there, and I don't care whether you call it dump, economy, firm, or what it is. It is electric power, and the same and

only one kind of power. It lights the bulbs and it turns the motors. It is only one kind of power in the last analysis that is being generated and delivered here. These terms are confusing.

Q. Now, Mr. Grimsley—

MR. McALLISTER: Let him finish his answer.

MR. PAXSON: He is not answering.

MR. McALLISTER: He is answering.

EXAMINER SPENCER: Did you finish your answer, Mr. Grimsley?

THE WITNESS: No, sir. He broke my thought entirely.

EXAMINER SPENCER: Let him finish his answer, Mr. Paxson, in all cases.

MR. McALLISTER: I would like to have the opportunity of hearing what he did say, and then let him complete his statement.

EXAMINER SPENCER: Will the reporter read the answer, please?

(The answer of the witness was then read by the reporter.)

THE WITNESS: That is it. I am through.

EXAMINER SPENCER: You may proceed.

BY MR. PAXSON:

Q. Mr. Grimsley, when you say "Public Service depends upon power from Jersey Central to carry its peak load," I am asking you as an expert whether any company can be said to depend upon power to carry a peak load unless it is entitled to that power under a contract?

A. Yes; absolutely yes. Here is a clear demonstration of that.

Q. Then you did—

A. Let me finish my answer, please. Here is a clear demonstration of what has taken place by the terms of that contract. It is perfectly absurd and ridiculous to think that the Public Service of New Jersey has broken down facilities, has excessive loads, or such conditions that prevail every hour in the year. That is what the contract says. But that is not the kind of service Jersey Central is furnishing or the kind that the Public Service is buying or using. You know that a big system is not broken down every hour in the day with a turbine out or power plant out or transmission lines out. It is a highly efficient system, as I regard it, and a very dependable system. As the contract reveals, that might have been the intention; but I have tried clearly to say that it is not operating in that way.

Q. Don't you know the Jersey Central Power and Light Company any day can cease supplying power to Public Service Electric and Gas Company?

A. Why, yes.

Q. That is true, isn't it?

A. Under the terms of the contract; yes. But I have not been concerned with that, naturally, because I am only concerned with how it has operated.

Q. All you are saying is that you do not think that it does today?

A. It did not operate that way.

Q. Mr. Grimsley, with reference to inter-connection between Public Service and Staten Island, you state on page 116 that "Over this line some three million were delivered to Staten Island and nearly the same amount received from Staten Island."

As a matter of fact, isn't it true that the balance is in favor of Staten Island, by which I mean that more power has flowed from Staten Island to Public Service than from Public Service to Staten Island?

A. Exhibit No. 5 shows Staten Island purchased, in round numbers, 3,800,000 for the year 1934 and sold 3,000,000, in round numbers. There was a balance for that year.

Q. Let's take up 1937.

A. 1937 shows the order of the three previous years was slightly reversed. It was very nearly balanced, I would say.

Q. It was very nearly balanced out?

A. Yes.

Q. Last year an excess coming to Public Service?

A. Yes; the exhibit shows that.

BY MR. McALLISTER:

Q. What exhibit is that, so that it may be identified?

A. Exhibit 5.

EXAMINER SPENCER: He has already identified it.

BY MR. PAXSON:

Q. Then, Mr. Grimsley, don't you think it is a little remarkable to say that Staten Island is dependent upon Public Service when in 1937 it supplied Public Service with more power than it took from Public Service?

A. No. I think Staten Island is operating on a right close margin for efficient power plant capacity. They can buy that service apparently, as they have shown in their report, stand-by service or emergency service. In other words, it is a service they can call for and receive from Public Service in case of a breakdown of one of their units. They are depending very largely upon that, and it is probably the economical thing for them to do.

Q. I do not like to let words slip by. What do you mean by "dependent"?

A. Well, I am trying to make it clear. It means that they are operating there under conditions and if one of its

15,000 kilowatt turbines should go out the service will not be impaired; Mechanic Street will deliver that; it firms up their service.

Q. You mean in emergency they would take from Public Service?

A. Yes; or in case of repair periods it may be cheaper to buy that service than to own it. I think the word I used there is very proper.

Q. That is what you mean?

A. Yes.

Q. Actually the facts do show that they practically balance out?

A. Yes.

Q. And, if anything, last year Staten Island gave Public Service more than Public Service gave Staten Island?

A. Yes. That is a case where interchange comes in.

Q. And I do not suppose you can say during 1937 and the first part of 1938, up to March 14th, this interconnection was used for emergency service, if at all?

A. No; I can not say that. I do not have it indicated in the record. But while I was at the substation at Mechanic Street there was a flow and swing back and forth, indicating 2500 going out to Staten Island maybe in five seconds or in two seconds and 2500 kilowatts going the other way, operating in paralled, and apparently a satisfactory operation.

Q. Don't you know, as a matter of fact, that most of the flow of power between Staten Island and Public Service is either incidental power—by which I mean slop-over—for 1937 and for the first part of 1938, up to March 14th?

EXAMINER SPENCER: Can you answer that question, Mr. Grimsley?

THE WITNESS: I can answer it, but I would

like to refresh my memory here by referring to the contract. I will answer it.

EXAMINER SPENCER: All right. You may do so.

THE WITNESS: I will take issue with you on the term you used there. It is immaterial to me what you call it.

BY MR. PAXSON:

Q. So long as we agree on what it is, I don't care about the name. Use your name for it.

A. In Exhibit No. 19 on certain days there is a pretty heavy movement of energy.

Q. Suppose we approach it in another way. Isn't it true, Mr. Grimsley, that when a switch is closed some power flows back and forth, what some people may call incidental power or what some people may call slopover power, or you may call it something else? I don't want to quarrel with you as to the definition. But isn't that true?

A. That is true. Parallel operations can bring about those conditions.

Q. Parallel operations can bring about those conditions?

A. I say you can bring about those conditions.

Q. Doesn't that always happen when the switch is closed—

A. That depends.

Q. Let me finish the question, please, and then you may answer.

Isn't it true that when a switch is closed, which is the case—and we both agree on that—at Staten Island between Staten Island and Public Service, that some power or kilowatts flow over the line involuntarily and is what you call unwanted power, and it flows back again?

A. Yes, sir.

Q. It flows in both directions?

A. That is true.

Q. You would not call that a commercial transaction, would you?

A. I think it enters into it.

Q. It enters into the statistics here?

A. Well, let me explain that. That enters into the serious effect of the problem. That condition to which you refer can be brought about at will by the operators at Staten Island. If they are going along and at the time they do not want to take much or any from Public Service, they can balance out the swing and for the hour they can deliver just the little bit they can control and receive a little bit. That will take place. On the other hand, if they deliver a little more than they intended to they can take it back and even it up in the next hour. But by reason of operating conditions there you are pooling your facilities and taking advantage of that economic situation that arises. It is definitely there. There is a fundamental reason for all of these interconnections.

Q. You say that this involuntary or slopover power can be controlled?

A. As to amounts?

Q. Yes.

A. Yes.

Q. Isn't it the usual thing in your experience or your knowledge of those operations that some involuntarily seeps over and then goes back?

A. That is right.

Q. Like the ebb and flow of the tide?

A. Absolutely. I said that. I concede it.

Q. Irrespective of whether you state they can control it and push it over?

A. That is right.

Q. And if a large wave of it comes over the operator in Staten Island would immediately push it back if he did not want it, wouldn't he?

A. He can.

Q. I said if he does not want it he would.

A. Yes; if he does not want it, surely. In the meantime he has received it and used it.

Q. But he would send it back again?

A. That is true. That is quite true.

Q. And isn't it true—and if you don't know you may say so—that most of these statistics shown here on Exhibit No. 19 represent everything—incidental power—since the net result for the year is practically balanced?

A. I would not say that unless we had the hours. When Staten Island's peak is right up to the rating of these two generators then she is depending upon that swing there for that excess that may come on her own system, depending upon Mechanic Street for that.

Q. How do you know that? Is that just your conclusion?

A. I can not reach any other.

Q. I ask you how you knew it. You say you could not reach any other conclusion.

A. It is not a mere presumption. Abstract mathematics prove it.

Q. Then, prove it to me. I don't like these generalizations. If you say it is your opinion I am willing to let it go at that.

A. I may not be able to prove it to you.

EXAMINER SPENCER: Don't argue that. You may proceed.

THE WITNESS: Anyone knows when a system load is coming on, going up around 31,700—

BY MR. PAXSON:

Q. From what are you reading?

A. That is the peak load recorded. They can vary easily in that same system, with a demand of three or four or five thousand—You can only estimate this within rea-

sonable accuracy, you know. Operating there with two turbines, rated in one record as 30,000 kilowatts and in another and later report which says these turbines or generators may or will produce 35,000. I don't know for how long. They may have made some changes there, and, if they say they have, I believe it. They are getting dangerously close to the capacity of those generators. It would not be safe to operate under those conditions without some spinning reserve in their own system if they were not connected to the Mechanic Street Substation. They would not take that risk. They do not do it. They would have one of these other, less efficient generators, 10,000 kw. spinning along there to meet this peak. So again I want to make it clear that they are depending upon that source, very clearly by all records and deductions that I have made here.

Q. Of course, if a turbine broke down it would be an emergency, wouldn't it?

A. Oh, yes; or if they took one out for repair they could either start up their cold reserve or buy it. Certainly if they had that situation again and started up their cold reserve they are in the same situation then. They would be dependent upon Mechanic Street when such peak load came on to them.

Q. Now, Mr. Grimsley, will you please describe for me the meters on the switch board at Mechanic Street substation?

A. Can I describe them?

Q. Yes.

A. I saw all of them. We have a drawing purporting to show all of them. I cannot tell you off hand what meters are there except that I know that there are ammeters on each of the outgoing 26.4 feeders. Well, one of these exhibits shows that.

BY MR. McALLISTER:

Q. What does it show?

A. It shows ratings.

Q. What exhibit is that?

A. Exhibit No. 11 shows the instruments and the records which many of these calculations were based upon.

BY MR. PAXSON:

Q. Will you now proceed, please?

A. In the first column after the time column there is an indicating kilowatt instrument on the incoming line from Jersey Central Power and Light Company to Mechanic Street substation; there is a kilowatt indication going to Staten Island, there is a k. v. a. indication made up of three ammeters to the local load, to one bank of transformers and three to another bank of transformers, and there are two lines going to General Cable Corporation. That is recorded in amps. The line Q 199 on exhibit No. 9, the ampere readings are recorded, and line B 184 leading out of Mechanic Street to Keasby and Metuchen and ampere readings are shown, also line A 183, ampere readings are shown to the line connecting Mechanic Street to Metuchen. The next line is a duplicate line indicated as 196, ampere readings were taken.

Q. Have you any graphic watt hour meters?

A. There are ratchet watt hour meters to indicate the receipts and deliveries to both the Jersey Central Line and Staten Island line, so each one may do its own billing.

Q. When I asked about graphic watt hour meters I had in mind those which draw curves.

A. No. There are two watt hour meters. One has a ratchet that will not record except when energy is flowing in a given direction. The other meter has a ratchet that records when the energy is flowing in the other direction. So they have clearly recorded the receipts and the deliveries.

Q. Don't they have meters there that I call graphic watt hour meters? I am not sure whether I am technically correct. That is why I said that draw the curves.

A. I don't remember whether there were any in that station. I would not care to guess about it. I have some faint recollection that they had a reactive k. v. a. curve drawing instrument, but I am not sure.

Q. If they did have those meters that draw curves you did not study them?

A. No, sir. I had no occasion to study them for this job that I was on.

Q. What is the size of wire on the Mechanic Street—Metuchen tie-line?

A. On that we had that data, I thought, and we may have it, but at the moment I just cannot locate it.

Q. Do you know the size of the transformer located at Metuchen?

A. At Metuchen, you say?

Q. Yes.

A. I can give you that; yes, sir. Mr. Bass could have given us that if we had asked him for it yesterday, Mr. Paxson.

The diagram shows two banks of transformers and a spare transformer, three winding transformers, 132 k. v., 11 k. v., 26.4 k. v., capacity 185,000 k. v. a.

Q. Mr. Grimsley, isn't it a fact that Public Service Electric and Gas Company has more actual capacity available than is necessary to supply its own peak?

A. The Public Service?

Q. I say, Mr. Grimsley, isn't it a fact that Public Service Electric and Gas Company—and I used "Public Service", I believe, for short—has more actual capacity available than is necessary to supply its own peak in all the years that were studied?

A. That is true. I think I have testified to that on two or three occasions.

Q. Then, doesn't this show that Public Service Electric and Gas Company does not of necessity take any energy from Jersey Central?

A. Whether that necessity is confined to the physical use or the financial use, there is a difference. Speaking of physical assets, no, Public Service has ample capacity. Some of it is very old and inefficient.

Q. So it does not have to rely upon Jersey Central at all?

A. Not physically; but financially it has proven to be good policy to buy and interchange energy; because some of this equipment is very old and inefficient. That is to be found more or less in every system.

Q. When you make that general statement, what is the equipment that is so old and inefficient with Public Service? It is a pretty well managed and operated company, isn't it, Mr. Grimsley?

A. I think it is a splendid system. It is a fine organization. I have always regarded it very highly.

Q. Then the property is pretty well maintained, is it not?

A. Yes; I think so. I don't think they have breakdowns every hour in the year, as I stated before, of major importance.

MR. PAXSON: I think I shall take a rest, because my associate wants to ask some questions.

MR. McALLISTER: Just let me have an understanding, please. Are you substantially through, Mr. Paxson, except for incidental questions?

MR. PAXSON: I have a few more questions that I want to ask, but I am really getting weary. Because of the Commission's unwillingness to give me an adjournment I was up all night.

EXAMINER SPENCER: We will recess at this time until 2:30 o'clock.

(Whereupon, at 1:10 o'clock p. m., a recess was taken until 2:30 o'clock p. m.)

AFTER RECESS

(The hearing was resumed at 2:40 o'clock p. m., pursuant to recess.)

EXAMINER SPENCER: The hearing will be resumed. You may proceed, Mr. Autenrieth.

Whereupon

A. H. GRIMSLEY,

the witness on the stand at the time of recess, resumed the stand and testified further as follows:

Cross Examination (Continued)

BY MR. AUTENRIETH:

Q. Mr. Grimsley, referring to Exhibit No. 1, and in relation to the network shown on it, it is true, is it not, that interchange between New Jersey and Pennsylvania is pursuant to a contract that covers Philadelphia Electric Company and Pennsylvania Power and Light Company and Public Service?

A. You refer to that three party agreement?

Q. What we call the pool for the sake of giving it a name.

A. Yes.

Q. Jersey Central Power & Light Company is not a party to that contract, is it?

A. No.

Q. There are no contractual relations between Jersey Central Power & Light and Pennsylvania Power and Light?

A. Not that I know of.

Q. Or between Jersey Central and Philadelphia Electric Company?

A. None that I know of.

Q. Assuming any energy that came into that pool, Jersey Central's responsibility for that energy would

cease at its connection with Public Service?

A. That is right.

Q. Jersey Central can not call on Pennsylvania Power and Light facilities for energy?

A. That is right.

Q. Nor can they call on Philadelphia Electric Company for energy?

A. I know of no such contract; no, sir.

Q. Am I correct in quoting your testimony to the effect that you did not trace out the source of energy at Wrightstown and Boonton in the manner in which you did at Staten Island?

A. That is correct. I did not trace it out.

Q. Now referring to Staten Island, for a moment, I call your attention to Exhibit 6.

EXAMINER SPENCER: Mr. Autenrieth, if it would be more convenient, you may sit on this side of the table.

MR. AUTENRIETH: That is all right.

BY MR. AUTENRIETH:

Q. That purports to show the transactions between the four companies named on the exhibit as to power sold and power purchased; is that correct?

A. Yes, sir.

Q. Does it show any transaction between Jersey Central Power & Light Company and Staten Island Edison Company?

A. Not as such; no, sir.

Q. I am speaking of the exhibit. There are no transactions shown between those companies?

A. No, sir.

Q. In fact there are no direct transactions between those companies?

A. I know of no contractual transactions.

Q. Direct transactions?

A. Yes. I would say that there are no relations between them.

Q. I didn't ask you that. Your idea of relations is what you have already indicated in the transfer of energy through the medium of Public Service, is that it?

A. Let me have your question first, please.

EXAMINER SPENCER: Read the question.

(The reporter thereupon read the pending question as recorded.)

THE WITNESS: I think I can answer that this way. Only through the facilities of Public Service Gas and Electric.

Q. When you made Exhibit 6, it purported to show power purchased and sold?

A. Yes.

Q. You show no transaction between Jersey Central and Staten Island?

A. That is correct.

Q. Now, prior to 1931, do you know whether Jersey Central transmitted any energy to Public Service?

A. Not offhand, I do not know.

Q. I do not know. That is your answer, that you don't?

A. Oh, I can determine that by the records here available.

Q. I can prove it otherwise. I wanted to call your attention to the next question.

A. All right.

Q. Do you know how long Staten Island Edison has taken power from Public Service?

A. Offhand, I do not.

Q. Do you know how long the present connecting facilities have existed between Staten Island and Public Service?

A. Only to the extent indicated in the contract, and I don't know whether that fixes the date or not.

Q. Do you know whether or not the facilities between Staten Island Edison and Public Service existed before Jersey Central ever came into existence?

A. I do not know that; no, sir.

Q. Now again referring to Exhibit 6, it is true, is it not, that the amount of energy for the year 1937 that Staten Island purchased from Public Service is less than 1 per cent of the total production of Jersey Central?

A. Well, I can calculate that.

Q. That is somewhat apparent on the face of it. I didn't ask you the exact percentage, but it is less than 1?

A. All right.

Q. It appears also, does it not, for the year 1937, that Staten Island took from Public Service approximately 5½ per cent of the energy delivered by Jersey Central Public Service?

A. I will have to have that question read, please.

(Thereupon the reporter read the pending question as recorded.)

BY MR. AUTENRIETH:

Q. That is just a rough calculation.

MR. McALLISTER: The figures relate to one another.

BY MR. AUTENRIETH:

Q. Suppose I put it this way: It is obvious on the exhibit——

A. (Interposing) It certainly checks out 5½ per cent roughly.

Q. Roughly 5½ per cent?

A. Yes, sir.

Q. Now the connection between Jersey Central and Public Service at South Amboy is usually closed, is it not?

A. Sure.

Q. Closed?

A. Yes, sir.

Q. And I believe you did say the trend of the flow was generally in the direction of Public Service?

A. Yes.

Q. In that situation there is a constant amount of incidental, slop-over energy on this line flowing in one direction or the other?

A. To Mechanic Street?

Q. To Mechanic Street.

A. Definitely, no.

Q. Well, because the trend is usually in the direction of Public Service there is a constant flow in one direction?

A. Yes, during about the 18 hour period.

Q. I understood you to say that this energy delivered over this connection is in your opinion firm power?

A. According to the record, yes.

Q. You say that because of its fair degree of constancy and quantity?

A. Yes, sir.

Q. You say you would not call it economy flow?

A. I can't see any situation there where that energy might be classed as economy flow. However I do want to make it clear that I think that the records show the movement of this energy to Mechanic Street results in a substantially firm supply.

Q. Well, except for such times when they are running fairly close to balance?

A. After midnight until six o'clock in the morning.

Q. Except for such times, isn't it a fact there are daily transactions between the load dispatchers for any excess of ordinary flow?

A. That is my understanding, they agree on prices.

Q. And the excess to Public Service is based on the difference in generating capacity of the two companies?

A. That is right.

Q. Isn't it also a fact that costs must be agreed upon in each transaction from day to day or several times during the day?

A. I think so; yes, sir.

Q. It is also true Public Service must call for power in quantities it desires from time to time?

A. I believe the terms of the contract indicate that, but whether in fact if it is done, I don't know. I am inclined to think if might be done over two or three hour periods. They do their shopping on prices.

Q. That has gotten down to where it is a routine matter?

A. That is right.

Q. You say contract. Is there any written contract that you know of whereby this energy priced out on differential between generating costs exist between these parties?

A. Why sure.

Q. That is a contract between Jersey Central and Public Service?

A. Yes.

MR. AUTENRIETH: Off the record.

(Discussion off the record.)

BY MR. AUTENRIETH:

Q. Does that provide for the billing of this energy on the generating cost basis?

A. I should have to refresh my memory.

Q. Or does it only provide

A. (Interposing) I would prefer to refer to the record and be accurate.

In order to progress more rapidly and without going into this again more fully, I don't find any plan for billing other than for emergency power, and if there is reference to the sale of economy power I haven't seen it so far.

Q. It is not referred to in that contract?

A. I don't say it is not in here. It is quite lengthy, but it seems, in this short time, the price arrangement seems to be all based on emergency power. Now there may be other conditions in here providing for this economy power, but I don't see it.

Q. You mentioned the expression emergency power.

A. Beg pardon?

Q. You mentioned the expression emergency power.

A. Yes, sir.

Q. I understand the best definition of it is that each of the parties themselves give it to it under the terms of the contract, is that right?

A. I think when they do that there can be no question about the meaning of it as is to be used in the contract.

Q. And in their contract you have just referred to, what is the date of it?

A. In the event of breakdown—

Q. (Interposing) What is the date of that contract?

A. The 24th day of March, 1931.

Q. Now assuming, therefore, that economy flow is not provided for by the contract which you have just mentioned, and the transactions relating to economy flow are day-to-day transactions between load dispatchers, as to prices, do you still say that the classification of that power is firm power?

A. I don't think that makes any difference.

Q. Is the firm power that power which they are obligated to supply?

A. I think the records prove what they have to do.

Q. The records may show it has been carried on with characteristics equivalent to firm power, but isn't that understood in the industry that firm power contracts are those where there is an obligation to supply?

A. That is absolutely right.

Q. And emergency is not a firm obligation except where the supply system is in position to do it?

A. That is what I have stated several times. The contract apparently is not operating, or the service is not operating as emergency service. If it is then to be emergency service it must have one of these conditions defined here every day in the year, breakdown of equipment, unusual load demand and or unusual or abnormal conditions of system of other party resulting in need of that party of power in excess of capacity available from its normal power source.

Well, it isn't reasonable to expect that that large system finds itself in that shape every day in the year.

Q. Would it be reasonable to find the conditions such whereby the generating costs of Jersey Central are always slightly lower than Public Service?

A. I think the contract proves that.

Q. You think the contract proves that?

A. Yes, sir.

Q. And that would be the basis for taking economic flow supply?

A. I said it unquestionably results in lower costs which permit them to shut down their Perth Amboy plant. They could not, in my opinion, as an operating man, shut that plant down cold in that important load area without this connection, without this very dependable connection.

Q. Do you know whether that connection is severable at will?

A. Yes, sir.

Q. It is?

A. Yes.

Q. If it were a contract for firm power it would have a term of years or months?

A. If it were a contract for firm power?

Q. Yes.

A. That is true.

Q. And the rate for firm power would be something in excess of the rate on economy flow?

A. Yes, that is true.

Q. Because of the obligation to serve?

A. That is true.

Q. It would keep the supplying company always in the position of standing by?

A. Yes, but that does not alter the way in which the service has been used.

Q. Now to get down to the end of this discussion, as I understand, you call it firm power because of its constancy and quantity?

A. I am afraid you misunderstood.

Q. If I did, correct me.

A. I didn't say that it was firm power. I said the records disclosed that it is serving that function. It is actually doing that. I don't care what you call it, firm or not, it is in fact rendering a service over a period of time that the records show is dependable, reliable and in a given amount, such as Public Service requires and is operating equivalent to that. There is a great deal of difference between a contract for that. I wonder if I make myself clear?

Q. I was trying to get your definition why you call this firm power, and I understand you to say because of its constant flow and quantity over a long period of time, and because it had all the aspects and characteristics of firm power you so considered it.

A. The service supplied has been tantamount or equivalent to firm power.

Q. Although it is severable at will?

A. Yes.

Q. Your testimony—excuse me, had you finished?

A. I don't believe the executives of these two companies would each arbitrarily cut that off and exercise their right in the contract after so long a time as proved it to

be profitable.

Q. They have the right to do it?

A. Absolutely.

Q. Then your statement the connection of Staten Island is reliable because of the availability of power from Jersey Central is subject to the right to discontinue?

A. The question has distorted my whole line of thought.

Q. Then I misread it or misunderstood it.

MR. McALLISTER: It seems to me that the contract itself rather than the witness's answer would determine what the contract provides as to the terms under which it might be terminated, and I merely want to have the record show this contract is already in evidence and it is surprising to me that the witness should be cross examined on the terms of the contract and analyze the terms of the contract.

MR. AUTENRIETH: There is no contract here on economic flow. There is no provision for economic flow in that. When we come to our case we will prove the verbal understanding.

MR. McALLISTER: You did not make that clear and I don't think Mr. Grimsley in his answer was referring to a contract about which he did not know, but his answer was related to the contract which he has before him.

EXAMINER SPENCER: Has this contract been offered in evidence?

MR. PAXSON: Offered by reference only.

EXAMINER SPENCER: By reference.

MR. PAXSON: You offered it.

MR. McALLISTER: I think I did. That is what I say.

MR. AUTENRIETH: It has no exhibit number?

MR. McALLISTER: No exhibit number.

MR. AUTENRIETH: That is right.

MR. McALLISTER: If the questions addressed to Mr. Grimsley relate to that contract and his answers are with reference to that contract, that is one thing, but if your question related to some other contract about which he didn't testify and Mr. Grimsley in his answers was relating them to this contract and that misunderstanding exists, then we have something on the record which may give the wrong impression.

EXAMINER SPENCER: All right, has this contract which you have before you been introduced in evidence?

MR. McALLISTER: Yes, it has, Mr. Examiner, at page 33 of the record.

MR. AUTENRIETH: By reference and not by exhibit number. I intend to offer them for exhibit numbers as I get around to my side of the case.

EXAMINER SPENCER: All right.

BY MR. AUTENRIETH:

Q. I will clear this up. I thought Mr. Grimsley had some knowledge of the verbal arrangement.

Did you know there is a verbal arrangement effecting economy flow between Public Service and Jersey Central?

A. I did not.

MR. AUTENRIETH: His answer has qualified that.

MR. McALLISTER: In other words, when he had in mind the contract which is Public Service rate schedule F. P. C. No. 7, introduced in evidence on page 33 of the record, his answers related to the pro-

visions of that contract, when in fact you had in mind in putting the questions—

MR. AUTENRIETH: (Interposing) I asked him, assuming he knew about this contract. Anything that refers to economy flow, I am willing to have stricken.

EXAMINER SPENCER: Let the questions relating to economy flow under any contract between Jersey Central Power & Light Company and Public Service and the answers thereto be stricken from the record.

BY MR. AUTENRIETH:

Q. And one more question so we can get one other fact clear. When you said the contract was severable at the will of the parties you referred to the written contract and not the verbal understanding?

A. Yes, sir.

MR. AUTENRIETH: I think that ought to be cleared up.

EXAMINER SPENCER: All right.

MR. PAXSON: Pardon me, is Mr. Grimsley testifying, or the other three gentlemen? There has been an awful lot of coaching going on here. We don't coach our witnesses.

EXAMINER SPENCER: Proceed.

BY MR. AUTENRIETH:

Q. Mr. Grimsley, I understood you stated—

A. (interposing) I wish to get something straightened out for the record.

Q. All right, strike that and proceed.

A. I was taking it for granted that you were stating the terms of the contract.

Q. Which contract?

A. This one in evidence, the only one I know of, and

the terms of this contract don't seem to bear you out in the statements you have made on two or more occasions when you put the question to me that it was severable immediately was the idea you conveyed.

Q. I was asking about economy and I have stricken that all out because I understood your references related to the other and they may be stricken out.

A. Now, for the accuracy of the record—

Q. (interposing) All right, make your statement.

A. Then this contract is not severable upon a moment's notice or a few hours' notice.

Q. Not the emergency contract?

A. I don't contend that it is.

Q. That is what I was asking you, thinking you knew of the economy flow agreement and then I conceded that it be stricken.

MR. McALLISTER: It isn't clear unless you refer to the provisions of the contract.

MR. AUTENRIETH: I will admit—

EXAMINER SPENCER: (interposing) Proceed with the cross examination. Any matters not cleared up may be cleared up on redirect.

BY MR. AUTENRIETH:

Q. Now I understood you to say if the Public Service did not have the Jersey Central connection it would not dare close down its Perth Amboy generating plant.

A. I doubt whether I put that statement just that way.

Q. You put it again, the way you meant it, will you?

A. I do not believe that the Public Service Electric and Gas Company would shut down its Perth Amboy plant without this connection.

Q. Why do you say that?

A. Because it is obligated to deliver on demand

breakdown, according to the report of the Staten Island, some 25,000 kilowatts. Now it doesn't seem reasonable that Public Service would shut that plant down at Perth Amboy and yet obligate itself to deliver on short notice 25,000 kilowatts to Staten Island without this connection at Perth Amboy.

Q. Isn't there a great deal of excess capacity right in the vicinity of Perth Amboy?

A. It is not my understanding; no, sir.

Q. What about Metuchen?

A. That is only a switching station and quite a distance from the power plant.

Q. Where is the nearest generating capacity?

A. Keany seems to be the nearest plant of its own.

Q. You have the Essex Station in almost the same vicinity as well, don't you?

A. Yes, but by the transmission plant it would be farther and would be farther from the Marion plant too.

Q. When you say you don't believe the Public Service would close it down, that is a matter of opinion?

A. That is right.

Cross Examination (continued)

BY MR. PAXSON:

Q. Now, Mr. Grimsley, let us turn for a moment to Exhibit Nos. 11 and 12. Do you have those exhibits before you, Mr. Grimsley?

A. 11 and 12: yes, sir.

Q. I don't want to rush you. Have you got them?

A. Yes.

Q. Now taking up that Exhibit 11, how many readings are shown here? This shows instrument readings recorded on the substation log sheets of Public Service Electric and Gas Company at Mechanic Street Substation, I understand?

A. Yes.

Q. How many readings are shown there?

A. Well, you first asked how many readings were shown and then another question which I didn't understand.

EXAMINER SPENCER: Read the question.

(The reporter thereupon read the pending question as recorded.)

THE WITNESS: Well, I will have to count them up. That will take some time.

BY MR. PAXSON:

Q. Pardon me.

MR. McALLISTER: That was down this way and across. Do you want to confuse him? Do you mean how many times?

BY MR. PAXSON:

Q. I think readings, as one reads all the way across they are not parallel columns for how many different times?

A. We take them down the time column, I think there are 150.

Q. About 150?

A. Yes, sir.

Q. I just wanted an approximate on it.

A. Yes, sir.

Q. Now what period of time is covered by this exhibit?

A. The first one appears January 26, 1937. The last one September 6, 1938.

Q. How many gross readings would there be for the entire period covered? If you had taken all the readings, how many would there have been?

A. I think I can calculate that in a few minutes.

Q. Go right ahead and do it. It won't take very

long. (After a pause.) Mr. Grimsley, I didn't really care to have that mathematically correct. If you think you can approximate it, that would be all right. If you can't I would rather have it mathematically. I am not going to quarrel with you if you are 50 or 100 out of line.

A. I get approximately 25,520.

Q. Well, something over 25,000 readings. My figures were approximately 25,000, so I guess we are substantially in accord.

A. My head is not very good for that kind of mathematics now.

Q. That is all right. Then you have taken some 150 readings out of approximately 25,000 readings. Just why did you take these particular 150, Mr. Grimsley?

A. At times when considerable power was going over from Jersey Central and for the same period it was going to Staten Island. That was necessary to make my determination. Now we might get 15,000, I don't know, to compare with those, but the point was to establish certain conditions at time of flow and at times when there was no energy flowing to Staten Island there was no point in taking those readings.

Q. These are hand-picked readings where you worked toward a particular result and you selected those that would best show what you desired to establish?

A. I was trying to get a condition when the energy was coming over from Jersey Central and flowing to Staten Island and over a period that might be considered typical.

Q. Just a moment—

A. (interposing) I don't know unless we go through all of them and compare them with these.

Q. I suppose it would be pretty easy to pick out 150 other examples when power is flowing from Metuchen substation to Staten Island supplying the Mechanic Street load, would it not?

A. Oh, I think so, yes. Maybe more.

MR. PAXSON: That is all.

EXAMINER SPENCER: Does that conclude your cross examination?

MR. PAXSON: I have no further cross examination.

MR. AUTENRIETH: I have no further cross examination.

EXAMINER SPENCER: You may resume your redirect, Mr. McAllister.

MR. McALLISTER: May we have a short recess?

EXAMINER SPENCER: How long?

MR. McALLISTER: Well, we didn't know the cross examination would be finished so abruptly and we need a little time to confer.

MR. PAXSON: We do surprising things sometimes.

EXAMINER SPENCER: We will take a 10-minute recess.

(Whereupon a 10-minute recess was taken, at the conclusion of which the following occurred:)

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

MR. McALLISTER: Mr. Examiner, I have no redirect examination of Mr. Grimsley. That concludes the case on behalf of the Federal Power Commission in chief.

We rest at this point.

MR. AUTENRIETH: If Your Honor please, they stated yesterday I believe it was, Mr. Crumley, who is President of Jersey Central Power and Light Company, really should be the first witness, whether it is on my side or Mr. Paxson's. He would lay the narrative for the story as a whole, to which the other witnesses could supply the corroborative evidence.

If it is convenient, I would like to have his testimony laid over until tomorrow. His testimony will not be long. I think we can finish entirely tomorrow.

EXAMINER SPENCER: Is he the witness for the Jersey Central?

MR. AUTENRIETH: Yes, Mr. Examiner, and the only witness.

EXAMINER SPENCER: Is he also a witness for the New Jersey Power and Light Company?

MR. PAXSON: The same interests are involved.

MR. AUTENRIETH: It is on the same question of interstate commerce. As I said, we are not interested in the stock question.

EXAMINER SPENCER: And he will be here tomorrow?

MR. AUTENRIETH: He is coming in tonight, so he will be here in time to start tomorrow.

EXAMINER SPENCER: Mr. McAllister, what have you to say?

MR. McALLISTER: Mr. Examiner, I have this comment to make, that it seems to me the case on behalf of the respondent might reasonably proceed this afternoon. We worked until 1:30 in order to accomplish something, and it hardly seems we are mak-

ing much progress under these circumstances and we ought not to adjourn at this time. We are ready to go forward now. We are raring to go right now.

MR. PAXSON: What he means is that he is raring to have us go.

MR. McALLISTER: I will accept that suggestion.

EXAMINER SPENCER: As to the adjournment at 1:30, all I can say is, "The best laid plans of mice and men sometimes go astray." It just did not work out so that we could carry on until 6 or 7 o'clock this evening.

Unless counsel for the Commission has some serious objection, the case will be adjourned until tomorrow morning at 9:30.

MR. McALLISTER: I would like to have it start at 10 o'clock, Mr. Examiner.

EXAMINER SPENCER: You will have no evidence to put in tomorrow. If we start at 9 o'clock we will come nearer to getting through tomorrow. And I will say, gentlemen, that we will get through tomorrow if it is necessary to sit until 12 o'clock midnight.

If we start at 10 o'clock will we finish tomorrow?

MR. AUTENRIETH: Mr. Crumley will not be long.

EXAMINER SPENCER: How many more witnesses will you have?

MR. AUTENRIETH: That is all.

EXAMINER SPENCER: How many witnesses will you have, Mr. Paxson?

MR. PAXSON: I do not know as to that. We

may cover all of it by Mr. Crumley or we may have some minor matters to take up in addition.

EXAMINER SPENCER: Well, gentlemen, we will adjourn at this time until 10 o'clock tomorrow morning.

(Thereupon, at 3:50 o'clock p. m. an adjournment was taken until Friday, September 30, 1938, at 10 o'clock a. m.)

Washington, D. C.,
Friday, September 30, 1938.

The hearing in the above-entitled matter was resumed, pursuant to adjournment, in Room 1201, Hurley-Wright Building, 1800 Pennsylvania Avenue, N. W., Washington, D. C., at 10:00 o'clock a. m.

Before:

Carroll B. Spencer, Trial Examiner.

Appearances:

As heretofore noted.

PROCEEDINGS

EXAMINER SPENCER: Gentlemen, the hearing will now come to order.

MR. AUTENRIETH: I will now call Mr. Crumley as the first witness.

Whereupon,

THOMAS R. CRUMLEY

was called as a witness on behalf of the Intervener and, having been first duly sworn, testified as follows:

Direct Examination

BY MR. AUTENRIETH:

Q. Will you please state your name?

A. Thomas R. Crumley.

Q. Where do you reside, Mr. Crumley?

A. Eatontown, New Jersey.

Q. What is your position with the Jersey Central Power and Light Company?

A. I am President.

Q. You have been President for about how long?

A. Ten years.

Q. When was Jersey Central Power and Light Company incorporated?

A. February 2, 1925.

Q. Just briefly, Mr. Crumley, prior to the incorporation of Jersey Central Power and Light Company what was the electric condition throughout the territory now served by Jersey Central?

A. At that time there were a lot of small independent companies which were incorporated into Jersey Central Power and Light Company at the time of that incorporation.

Q. Jersey Central Power and Light Company is a consolidation and merger of a number of small companies in its territory?

A. That is right.

Q. Mr. Crumley, I show you a map. Does this map correctly define the present Jersey Central Power and Light Company System?

A. Yes, sir; it does.

MR. AUTENRIETH: I will offer that map in evidence as Exhibit No. 1.

EXAMINER SPENCER: Is there any objection?

MR. McALLISTER: I see no objection at this time.

EXAMINER SPENCER: It will be admitted as intervener's exhibit No. 1.

(The document above referred to was received in evidence and marked Intervener's exhibit No. 1.)

BY MR. AUTENRIETH:

Q. Mr. Crumley, you are also an electrical engineer, are you not?

A. I am.

Q. And you have been engaged in the profession of electrical engineering for how long?

A. About 37 years.

Q. Have you actually operated and constructed electric properties?

A. I have.

Q. During what time? During that period you have mentioned?

A. Yes, sir.

Q. That has been practically your only vocation in life, hasn't it?

A. Yes, sir.

Q. Mr. Crumley, you mentioned the present Jersey Central Power and Light Company is the result of the consolidation and merger of a number of small independent companies.

A. Yes, sir.

Q. To indicate the general magnitude of Jersey Central can you state the present outstanding securities?

A. In round figures?

Q. Yes. That will be sufficient.

A. There are $42,225,000 of bonds, par value; approximately $22,000,000 preferred stock—

Q. Of three different series?

A. Of 5½, 6 and 7 per cent, in approximately equal amounts, and $10,537,700 par value of common stock.

Q. A total invested capital of approximately how much?

A. Just a little short of $75,000,000.

Q. Going back to the electrical situation with respect to generating capacity, prior to 1930 what was the situation electrically with Jersey Central?

A. Prior to 1930 we were operating a number of small generating plants which had originally belonged to the constituent companies now forming Jersey Central Power and Light Company, and we were also buying part of our requirements from Public Service Electric and Gas Company.

Q. As firm power?

A. Yes; as firm power, at South Amboy.

Q. In 1930 what took place with respect to your generating capacity?

A. In 1930 we built a 50,000 k. w. plant at South Amboy, New Jersey.

Q. Proceed, please.

A. At the time when we put that plant into operation we stopped buying firm power from Public Service Electric and Gas Company and we also closed down a number of small, inefficient plants which had been supplying our requirements before that time.

Q. This South Amboy plant was more than adequate for your own company demands, was it not?

A. Yes, sir.

Q. In 1930 there was a company contiguous to the property of the Jersey Central right in your territory

known as the Eastern New Jersey Power Company, was there not?

A. That is right.

Q. Did that company finally become a part of Jersey Central?

A. It was acquired in 1931 and merged into Jersey Central Power and Light Company.

Q. During the period in 1930 when you were constructing the South Amboy Plant did the Eastern New Jersey Power Company also construct a plant?

A. They were engaged at the same time in building a 60,000 k. w. plant at Sayreville, sometimes called the Raritan River plant.

Q. Both of those plants went into operation some time in the latter part of 1930 or in 1931?

A. That is correct.

Q. So in 1931 Jersey Central found itself possessed of these two plants?

A. That is correct.

Q. And that made you rather long on power, did it not, Mr. Crumley?

A. That is true.

Q. At the present time how many customers, in round figures, does Jersey Central have?

A. About 101,000.

Q. You say that in 1931 you discontinued the firm power contract with Public Service Electric and Gas Company and entered into an emergency power contract?

A. Yes.

MR. McALLISTER: I had not heard him say that.

MR. AUTENRIETH: I thought he said it.

BY MR. AUTENRIETH:

Q. At any rate, Mr. Crumley, will you tell us about that?

A. Yes, sir; that is right.

Q. Will you proceed, please?

A. In 1931 we entered into a new contract with Public Service Electric and Gas Company for emergency power.

Q. I show you a photostatic copy of contract dated March 24, 1931, and I will ask you if that is the contract to which you refer.

A. Yes, sir; this is the contract.

MR. McALLISTER: Are you going to offer that for the record?

MR. AUTENRIETH: Right now. I offer this contract as Jersey Central exhibit No. 2.

EXAMINER SPENCER: Without objection, the contract will be admitted as intervener's exhibit No. 2.

(The contract above referred to was received in evidence and marked Intervener's exhibit No. 2.)

BY MR. AUTENRIETH:

Q. At that time, Mr. Crumley, did you also enter into any other arrangement with Public Service Electric and Gas Company with relation to the interchange of economy flow power?

A. Yes, sir; we did.

Q. Will you please state what that arrangement is?

A. That is a verbal arrangement which was worked out between the engineers of Jersey Central Power and Light Company and the engineers of Public Service Electric and Gas Company and the arrangement was approved by me for Jersey Central Power and Light Company and also by a representative of the Public Service Electric and Gas Company for their side.

Q. And with respect to the interchange of economy flow has that contract or that arrangement been carried on ever since?

A. Yes, sir; it has.

Q. Will you please describe the terms of that arrangement?

A. Economy flow energy is energy which is generated and supplied by one company to another company where the receiving company could generate the same amount of energy at a higher cost. The receiving company must have at all times the capacity to supply that energy.

I might elaborate on that a little bit. When we sell economy flow energy to Public Service Electric and Gas Company it is because we can generate that energy more cheaply than they can. We split the profit that is made by that transaction between the two companies, equally between the Public Service Electric and Gas Company and ourselves.

Q. When you say "profit" do you mean the difference between the generating cost of each company?

A. That is right.

Q. That is divided?

A. Yes, sir.

Q. Will you proceed, please?

A. As an example, if our costs were two mills per k. w. h. and Public Service Company's cost at that time were three mills, the energy would be billed at 2½ mills. We would make a little profit and Public Service Electric and Gas Company would save the same amount.

Q. The practical operation of this arrangement constitutes some form of a daily transaction, doesn't it?

A. That is correct.

Q. Just what is that transaction and how does it take place?

A. In the first place, both companies give to the other the data that is necessary for them to have in order to arrive at the costs. And Public Service will call up and find out from our load dispatcher how much extra capacity we have available and will also find out if our costs are

normal. Then they will determine whether they can buy power from us at a saving; and then they will notify us to give them five or ten thousand k. w., or whatever they may desire.

Q. And that is a daily transaction?

A. Yes; that is true.

Q. You say Public Service calls up. You mean their load dispatcher calls Jersey Central's load dispatcher, do you not?

A. That is right.

Q. And they conclude the calculation of generating costs?

A. That is correct.

Q. And then Public Service determines whether or not it will buy?

A. That is correct.

Q. Under that arrangement Jersey Central may also buy from Public Service when the costs are the other way?

A. Yes; that is true.

Q. In actual practice, Mr. Crumley, what has been the general trend of the flow of this power?

A. It has been toward Public Service.

Q. And that is due to what?

A. It is due to the fact that our generating costs are lower than their costs.

Q. As a rule?

A. As a rule; yes, sir.

Q. I take it the South Amboy plant is a highly efficient plant?

A. That is true.

Q. When you speak of this economy flow contract, that relates only to the connection at South Amboy?

A. That is right.

Q. There are no other connections with Public Service with which you interchange economy flow?

A. That is true.

Q. What connections do you have with Public Service Electric and Gas Company?

A. We have two other connections with Public Service Electric and Gas Company, at or near Wrightstown, New Jersey.

Q. Is that pursuant to a written contract?

A. It is.

Q. I show you a contract dated July 19, 1935. Is that the contract to which you refer?

A. Yes, sir.

MR. AUTENRIETH: I offer this contract in evidence.

EXAMINER SPENCER: Without objection, it is admitted and will be marked Intervener's exhibit No. 3.

(The contract above referred to was received in evidence and marked Intervener's exhibit No. 3.)

BY MR. AUTENRIETH:

Q. Mr. Crumley, you also have a connection with the New Jersey Power and Light Company, have you not?

A. We have.

Q. Where?

A. At Boonton.

Q. And originally that was pursuant to a contract dated when? Do you know the date of the original contract?

A. No, sir; I do not recall the date. It is specified in that contract.

Q. It is specified in the contract which I am about to show you, but I don't see it right off hand.

A. I think I can find it.

Q. That original arrangement was superseded by a

subsequent contract, dated February 6, 1937? Is that correct, Mr. Crumley?

A. That is correct.

MR. AUTENRIETH: I offer in evidence a copy of the contract referred to.

EXAMINER SPENCER: Without objection, it will be admitted and will be marked Intervener's exhibit No. 4.

(The document above referred to was received in evidence and marked Intervener's exhibit No. 4.)

BY MR. AUTENRIETH:

Q. Mr. Crumley, returning now to the Public Service connection at Wrightstown, will you please describe the connections there with Public Service Company?

A. Public Service Electric and Gas Company supplies us with energy for a limited section of our territory for the reason that we do not have adequate transmission facilities to serve that territory ourselves, so we purchase energy from Public Service to serve our customers in that small area.

Q. That area is at the southern end of your property?

A. That is right.

Q. You say you purchase firm energy?

A. Yes, sir.

Q. Will you please describe how that energy enters into the Wrightstown station?

A. It comes over a 26,400 volt line from Burlington, which line runs to a small town named Birmingham; it passes Mt. Holly, and that line is tapped off at Mt. Holly for a substation.

Q. These lines are Public Service Lines?

A. Yes, sir. At Birmingham the voltage is stepped down from 26,400 to 4,000 and a number of customers in

the small town of Birmingham are fed off of that 4,000 k. v. bus.

Q. Then, Public Service customers you refer to? They are Public Service Customers, are they?

A. They are Public Service Customers. Then it is stepped up at that point to 13,200 volts and comes over Public Service Electric and Gas Company's line to a point named Comical Corners. The line divides there, one line going down to New Lisbon.

Q. Is Comical Corners about at the borderline of Public Service Company's territory and Jersey Central's territory?

A. Yes.

Q. Except for Camp Dix, which you will explain in just a moment?

A. Yes, sir.

Q. Will you please proceed?

A. The line goes to New Lisbon to serve a small substation at that point and is transformed down to 2300 volts for service to that area.

Q. It goes immediately to distribution for Jersey Central customers?

A. That is right.

Q. At that point?

A. That is correct.

Q. Proceed, please.

A. The other line runs from Comical Corners through Camp Dix and is tapped off at that point to serve Camp Dix by Public Service. Then it continues on our pools for about three-quarters of a mile to Wrightstown.

The Wrightstown connection is ordinarily kept open except when we have trouble with our line and we disconnect our lines from Hightstown at some point between Wrightstown and Hightstown and serve Wrightstown area from this connection.

Q. Why do you disconnect the line between Wrightstown and Hightstown?

A. The two systems are not running parallel and, as a matter of fact, they could not be.

Q. At that point, you mean?

A. Yes.

Q. The New Lisbon connection is usually closed, isn't it?

A. Always closed.

Q. It is always closed?

A. Yes.

Q. And that serves the immediate area?

A. That is right.

Q. There is no interchange of power at this point with Public Service in the sense that any power is delivered by Jersey Central to Public Service?

A. That is true.

Q. It goes only one way?

A. That is right.

Q. Will you describe the area in the vicinity of Lisbon to which Jersey Central affords service?

A. It is a small rural territory.

Q. Small in area or small in number of customers?

A. Small in number of customers.

Q. And Wrightstown is very close to New Lisbon, isn't it?

A. Yes, sir.

Q. And the territory in the neighborhood of Wrightstown, Trembly towards Hightstown is what kind of an area?

A. A rural territory, very small towns.

Q. Domestic service and farm service?

A. That is correct?

Q. There is no power industry in that area?

A. No, sir.

Q. I might ask you one other question. Why don't

you serve that area from your own generating facilities?

A. Because we do not have the proper transmission facilities to get our power down there. We have plenty of power but we can not get it down to this point.

Q. Would the business there justify the investment to put in proper transmission facilities?

A. No; it does not.

Q. And it is more economical to buy your power at that point from Public Service?

A. That is true.

Q. Now, let's go to the Boonton connection. Where is that connection?

A. At Boonton.

Q. How does power come into that station? Just describe the connection, please.

A. The New Jersey Power and Light Company has a line coming from West Wharton to Boonton.

Q. How far is West Wharton from Boonton?

A. I believe it is twelve or fifteen miles.

Q. Both points being in New Jersey?

A. That is correct.

Q. What voltage does this power come into West Wharton?

A. Thirty-three thousand volts.

Q. I mean on the Jersey Central system.

A. One hundred ten thousand.

Q. And it is transformed to 33,000 volts?

A. Yes.

Q. And delivered to the Boonton connection at the same voltage?

A. That is correct.

Q. What is the purpose of the Boonton connection?

A. That is for emergency service.

Q. And to supply what part of your territory?

A. The northern section of our northern division, which means from Boonton north to Butler and Pompton Lakes.

Q. In that area you have customers which take energy at 33,000 volts?

A. Yes.

Q You have some large power industries in that area?

A. That is correct.

Q. How is the switch at the Boonton connection ordinarily?

A It is ordinarily open.

Q. Do you know how many transactions have taken place between Jersey Central and New Jersey Power and Light Company in the year 1937 at the Boonton connection?

A. I do not have those data with me. I have here the kilowatt hours purchased.

Q. That is what I mean.

A. And the kilowatt hours sold during the year 1937.

Q. What was the quantity of kilowatt hours purchased and sold during 1937? That is what I meant by my question.

A. Fifteen hundred k. w. h.; and 100 k. w. h. were purchased.

BY MR. McALLISTER:

Q. What was the figure sold?

A. Thirty-three hundred.

MR. McALLISTER: I would like to ask, if I may, which way that moved. Who was the purchaser and who was the seller?

BY MR. ATTENRIETH:

Q. The 3300 was sold by Jersey Central to New Jersey Power and Light?

A. No.

Q. How was it?

A. Jersey Central purchased 3300 kilowatt hours and sold 100 kilowatt hours.

Q. Now, in the year 1936 what were the kilowatt hours sold and purchased?

A. In 1936 Jersey Central Power and Light Company purchased 74,600 kilowatt hours and sold 183,200 kilowatt hours.

Q. Have you the information as to 1935 on the same subject?

A. Yes.

Q. Will you please state that?

A. In 1935 Jersey Central purchased 2700 kilowatt hours and sold 8200 kilowatt hours.

Q. That includes the entire year 1935, does it not?

A. Yes, sir. Well, no; it is only shown for August, September and December as the months when it was sold.

Q. It is since the effective date of the Federal Power Act? Isn't that correct?

A. Yes, sir. I imagine that is including August and after August.

Q. For the year 1935?

A. Yes.

Q. In the year 1938 up to March 14th were there any kilowatt hours purchased or sold?

A. I have the month of March here but I am not sure whether that was before the 14th of March or after the 14th of March.

Q. Can you check that? I want to get anything prior to that date.

A. I am sorry, but I do not have it.

Q. And you do not recall?

A. No, sir.

Q. Do you know the date?

A. It is just given as March. There is no date given.

Q. Tell us what the transaction is, anyway. We may be able to supply the date later.

A. Jersey Central purchased 21,300 and sold 52,300.

Q. All of this interchange is emergency power?

A. Yes, sir.

Q. You do not sell firm power to New Jersey Power and Light?

A. No, sir.

Q. In fact, Jersey Central does not sell firm power to any other company?

A. No, sir.

Q. Returning to the South Amboy-Perth Amboy connection, there is one other point with relation to the verbal contract that you have. Is there any understanding between the parties as to whether it is terminable upon notice or without notice?

A. The economy flow?

Q. Yes.

A. It is understood that can be canceled at any time.

Q. Mr. Crumley, can you say whether or not the requirements of Staten Island Edison Corporation at any time have entered into the contractual arrangements which you have with Public Service Electric and Gas Company?

A. No; it never did.

Q. Were Staten Island requirements ever discussed?

A. No, sir. Our arrangements are with Public Service.

Q. Your arrangements are exclusively with Public Service?

A. Yes, sir; that is correct.

Q. And, so far as you know, it is delivered into their system?

A. That is true.

Q. Have you any knowledge as to what they do with it?

A. No, sir; I have not.

Q. Will you please describe how the energy moves

from the South Amboy plant over to Public Service Electric and Gas Company?

A. We generate at the South Amboy plant at 13,200 volts. The energy passes through an oil switch and metering equipment to a 25,000 k. v. a. transformer.

Q. Located where?

A. Right at our plant.

Q. Will you proceed, please?

A. From there over two overhead transmission lines to the south bank of the Raritan River, where it enters cables that go under the river, on the north side of the river the two lines are brought up overhead and go to the Mechanic Street Substation of Public Service Electric and Gas Company.

Q. What company owns the submarine cable?

A. Public Service Electric and Gas Company.

Q. What would you say is the distance of the line owned by Jersey Central Power and Light Company from its generating plant to the south bank of the Raritan River?

A. About seven-eighths of a mile.

Q. Does Jersey Central Power and Light Company own any transmission lines that extend beyond the borders of the State of New Jersey?

A. No, sir.

Q. Or that go to the border line of the State of New Jersey?

A. No, sir; they do not.

Q. How far would you say that Wrightstown connection is from the boundary of the State of New Jersey by line distance?

A. By line distance?

Q. Yes.

A. I would say about 40 miles to 45 miles.

Q. How far would you say the Boonton connection is

by line distance from the nearest boundary of the State of New Jersey?

A. I think it is about 45 miles.

Q. From South Amboy how far is it to the State boundary?

A. By line distance?

Q. Yes.

A. I think it is about five miles.

Q. That is from the south bank of the Raritan River?

A. To Mechanic Street substation, and from there to the boundary.

Q. From there to the State boundary?

A. That is right.

Q. In the operation of this economy flow you say the general trend of the flow is toward Public Service?

A. That is correct.

Q. And you have given your reasons for that?

A. Yes, sir.

Q. As an engineer, is there such a thing as incidental trend of flow or slopover, or whatever other name you choose to give it?

A. Yes; there is.

Q. Will you just describe what that is?

A. If Public Service Electric and Gas Company desires to stop buying economy flow energy our system is brought into balance with Public Service. We speak of it as balance. If all conditions remained the same on both systems we could probably keep the two systems in balance and no energy would be transferred.

Q. In either direction?

A. In either direction. But conditions are changing all of the time on the two systems and that causes current to flow from one system to the other, and there is no way to prevent that from happening.

Q. Uncontrolled energy?

A. Yes; uncontrolled energy. We try as far as

possible to balance it out, if we can induce the Public Service Electric and Gas Company at that time, by taking incidental energy from them in order to balance it out.

Q. So your payment for this economy flow would be largely reflected in the definite quantities ordered from time to time?

A. That is right.

Q. All of this energy that passes in this way is billed on the economy flow basis pursuant to the contract?

A. Yes.

Q. There is no energy billed to Public Service Electric and Gas Company on the basis of firm power?

A. No.

Q. You do not serve them with firm power?

A. That is right.

Q. Have you before you any record of the amount of kilowatt hours taken as emergency from Public Service Electric and Gas Company at this South Amboy connection for the year 1937?

A. There was none during the year 1937.

Q. Has there been any during the year 1938 up to March 14th?

A. No, sir.

Q. Has there been any in 1936?

A. There were two instances in 1936. On July 11, 1936, we purchased 3,225 kilowatt hours. On December 10, 1936, there was an instantaneous demand of 234 k. w. taken from Public Service, but the period of time was so small that no kilowatt hours were recorded.

BY MR. McALLISTER:

Q. What was the last date you gave?

A. December 10, 1936.

BY MR. AUTENRIETH:

Q. What would you say is the annual profit on this economy flow energy that Jersey Central has supplied to

Public Service Electric and Gas Company at this point?

A. It is probably running now somewhere in the neighborhood of $10,000 a year.

Q. That is a fair average for the year 1937 and 1938 as well?

A. I think so; yes.

Q. What is the total gross revenue of Jersey Central Power and Light Company electrically?

A. About $9,000,000.

Q. For the year 1937?

A. Yes.

Q. So this profit is relatively a very small part of the business of the Jersey Central Power and Light Company, is it not?

A. Yes; relatively it is small.

Q. Relatively it is very small?

A. Yes, sir.

Q. I call your attention to the contract with New Jersey Power and Light Company dated February 6, 1937, which is marked Intervener's Exhibit No. 4. That contract provides for the supplying by Jersey Central Power and Light Company of firm power to New Jersey Power and Light Company, doesn't it?

A. Yes, sir.

Q. It is not now being supplied?

A. That is correct.

Q. Will you state why?

A. Because the facilities have not been built by New Jersey Power and Light Company to take the power.

Q. And firm power has never been supplied under this contract?

A. No, sir.

Q. And the minimum charges which under this contract do not take effect until the service is put into effect? Is that correct?

A. That is correct.

Q. In a sense that contract is presently inoperative so far as firm power is concerned?

A. That is correct.

Q. With respect to the economy flow to Public Service Electric and Gas Company at South Amboy, has Jersey Central Power and Light Company any control over that energy after it leaves its meters?

A. None whatever.

Q. And, so far as you know, it is merely delivered to the Public Service system?

A. That is true.

Q. Jersey Central Power and Light Company is a public utility of the State of New Jersey, is it not?

A. It is.

Q. And it is subject to the jurisdiction of the Public Utility Commissioners of New Jersey?

A. It is.

Q. Briefly, Mr. Crumley, will you state what the scope of jurisdiction is over Jersey Central Power and Light Company?

A. The Utility Commission of New Jersey has jurisdiction over our rates, our standards of service, contracts, and the issuance of securities.

Q. The transfer of securities as well?

A. That is true. As a matter of fact, it is almost every aspect of our business.

Q. Does it have jurisdiction over mergers and consolidations?

A. It has.

Q. And the sale of lands and property?

A. Yes, sir.

Q. And without mentioning it, I suppose general miscellaneous jurisdictions which you have not mentioned?

A. That is true.

MR. AUTENRIETH: I would like to offer in evidence the statute of New Jersey defining the jurisdic-

tion of the Commission, but I do not want to offer it in evidence physically, if Your Honor will take judicial notice of the statute. I can't supply you with a pamphlet there. I want to make it by reference.

EXAMINER SPENCER: Judicial notice will be taken of the statute of the State.

BY MR. AUTENRIETH:

Q. All of the present securities of Jersey Central Power and Light Company now outstanding to which you referred in your earlier testimony were issued pursuant to the authority of that Commission, were they not?

A. They were.

Q. And the transfer of the common stock to New Jersey Power and Light Company—about 32 per cent, I believe—concerning which this investigation refers, was also approved by the New Jersey Public Utility Commission, was it not?

A. It was.

Q. And that transfer has actually been recorded on the books of the company?

A. It has.

Q. Your rates, are they filed with the New Jersey Commission?

A. Yes, sir; they are.

Q. And included among your rate schedules are these contracts which have been offered in evidence, which are also filed as part of your rate schedules?

A. They have been filed.

Q. With respect to this verbal contract, obviously you can not file that. But what is the status of that situation with respect to the New Jersey Commission?

A. We report to the New Jersey Commission all transactions in connection with this economy flow energy, including the kilowatt hours and the revenue, in monthly reports which are submitted to them monthly.

Q. And they are filed with the Commission?

A. Yes, sir.

Q. And to the best of your knowledge do they show about this transaction and the arrangement?

A. The engineers of the Utility Commission have looked into this arrangement.

Q. Reference has been made in these proceedings to reports and data filed with the Federal Power Commission by Jersey Central Power and Light Company. I understand you have filed various reports with this Commission at various times?

A. We have.

Q. Were those filed by the company with any reservations as to jurisdiction?

A. All of these reports have been filed as a matter of courtesy to the Commission, and I believe in all cases we have so specified that we are filing the information as a matter of courtesy and reserved our right to say that we are not under the jurisdiction of the Federal Power Commission.

Q. You never considered the Jersey Central Power and Light Company was engaged in interstate commerce so far as the transmission of electric energy is concerned?

A. No; I have never considered it so.

MR. AUTENRIETH: I think I am about through, if Your Honor will indulge me for just a moment so that I can see whether I have any other questions.

EXAMINER SPENCER: All right.

BY MR. AUTENRIETH:

Q. I have just one or two more questions, Mr. Crumley. In this interchange of economy flow, or emergency power, for that matter, does the Public Service Electric and Gas Company in ordering, so to speak, power from Jersey

Central Power and Light Company ever declare why it needs this power and what its purpose is?

A. Not so far as I know. It is all done on a matter of cost of production.

Q. For example, does the transaction say, "We need power for a power pool or for Staten Island"?

A. No, sir.

Q. Has that ever entered into the transaction?

A. No, sir.

Q And, so far as you know, the transaction is merely a delivery to Public Service Electric and Gas Company for whatever their requirements may be?

A. That is correct.

Q. Have you any contracts or understandings that Jersey Central receives power from a power pool or from Staten Island or from any other place except Public Service Electric and Gas Company?

A. Will you please repeat that question?

Q. Jersey Central Power and Light Company is not part of a so-called power pool, is it?

A. No, sir.

Q. Your transactions relate solely to obtaining energy from Public Service Electric and Gas Company?

A. Yes, sir.

Q. Regardless of its source?

A. Yes, sir; that is correct.

MR. AUTENRIETH: That is all. You may cross examine.

EXAMINER SPENCER: You do not wish to cross examine, Mr. Paxson?

MR. PAXSON: No, not at this time.

EXAMINER SPENCER: The witness is with you, Mr. McAllister.

MR. McALLISTER: Mr. Examiner, may we have

a few minutes recess in order to simplify the matter?

EXAMINER SPENCER: For how long, Mr. McAllister?.

MR. McALLISTER: For about five minutes, Mr. Examiner.

EXAMINER SPENCER: We will recess at this time for five minutes.

(Thereupon a short recess was taken, after which the following occurred:)

EXAMINER SPENCER: The hearing will be resumed. You may proceed, Mr. McAllister.

Cross Examination

BY MR. McALLISTER:

Q. Mr. Crumley, some point was made yesterday of the manner in which the connection at Comical Corners was designated in reports which you filed with the Federal Power Commission. One of those reports designated the connection as Wrightstown-New Lisbon connection. Another report designated that connection as Wrightstown-Comical Corners.

Is that difference of such nature that it would be misleading to you as the president of your company?

I mean that variation wherein you call the connection at one time Wrightstown-New Lisbon and at another time Wrightstown-Comical Corners?

A. Well, it would not be misleading to me. It might be to someone else.

Q. Is it the same connection?

A. Yes. As I described a while ago the line comes to Comical Corners and divides at that point and one line goes to Wrightstown and one line goes to New Lisbon.

Q. Why would you in one report designate in one manner and in another report designate it in another manner, if that wasn't a usual term that might be applied? I mean if those two terms were not usual terms that might be applied to that connection.

A. The report might be made up by two different men who would describe the same connection in different words.

Q. Is it an error of any significance or consequence?

A. I should say not; no, sir.

Q. Would it mislead the other party to the interconnection arrangement at that point?

A. I don't think so, and it certainly was not intended to mislead anybody. I think it was a difference in wording probably made up at different times.

Q. Do you have different plants or other connections where one person today might designate it by one name and tomorrow by a different designation, the two being in more or less common usage?

A. I don't think so. It certainly would not apply to an important connection. This is rather an insignificant connection. It hasn't happened to my knowledge.

Q. What do you mean?

A. That the other connections have been described in different ways.

Q. Well, there is one plant in that area you sometimes refer to as the Holland plant and another time as the Gilbert plant.

MR. PAXSON: Just one moment, those plants are not in your plants, are they?

THE WITNESS: No.

BY MR. McALLISTER:

Q. But you know about that plant, do you not, Mr. Crumley?

A. Yes, sir.

Q. Isn't it true it is sometimes referred to as the Holland plant and sometimes as the Gilbert plant?

A. In talking to engineers, sometimes they do that.

Q. What I am trying to bring out is the mere fact you refer to it one time as the Gilbert plant and another time as the Holland plant doesn't have any real significance, does it?

A. I can't answer for New Jersey Power and Light Company. I don't know what they state on their reports.

Q. I know, but would that be such a variation that would mislead you in any respect?

A. No, it would not. I would know what plant they were referring to.

Q. Mr. Crumley, I hand you a report, which is labeled annual report of Jersey Central Power and Light Company to the Federal Power Commission for the year ended December 31, 1937, which was received in the Federal Power Commission on April 29, 1938, and which bears the signature of T. R. Crumley, as president of that company. I ask you if that is your signature and if that is the report that was filed by your company?

A. It is my signature and that is the report filed by our company.

Q. And that report shows on page 522 a description of a connection with Public Service Electric and Gas Company which you describe as Conical Corners-Wrightstown, isn't that true?

A. That is true.

Q. And that is correct, is it, that description and designation?

A. I believe a better definition would be Wrightstown and New Lisbon.

Q. Wrightstown and New Lisbon?

A. Yes, I think that would be better than the way it is stated there.

Q. But is that an adequate description?

A. I think so; yes, sir.

Q. You think it is?

A. Yes.

Q. I also show you a report designated Electric Utilities Licensees' Power System statement for the year ended December 31, 1937, made by Jersey Central Power and Light Company, which was filed with the Federal Power Commission on July 16, 1938, and which was signed by T. R. Crumley, as president, and ask you if that is the report made by you as president of the Jersey Central Power and Light Company, and if that is your signature?

A. That is my signature. The report was prepared by our general auditor.

Q. And in that report you refer to that connection with the Public Service Edison and Gas Company in and around or adjacent to New Lisbon or Wrightstown, New Jersey, as—

MR. PAXSON: (interposing) Pardon me, I can't hear for the post between us.

BY MR. McALLISTER:

Q. Referred to as New Lisbon and Wrightstown, New Jersey, connection. Is that correct?

A. That is correct.

Q. That is the same connection, is it not, that was referred to in the other report as Wrightstown and Conical Corners?

A. Yes, that is true.

Q. Mr. Crumley, I show you a letter signed by T. R. Crumley, President, on the stationery of Jersey Central Power and Light Company, under date of April 27, 1938, addressed to R. H. Barkley, Regional Director, Federal Power Commission, 641 Washington Street, New York City, to which is attached a statement labeled Interchange of Power between Jersey Central Power and Light Company and Public Service Electric and Gas Company at South Amboy, New Jersey, from January 1, 1937, to April 23, 1938, and ask you if that is a communication sent by you and if that is your signature?

A. That is my signature and that is the information which I supplied to the Federal Power Commission.

Q. Is that information contained in the statement which accompanied your letter accurate and complete?

A. I think so.

Q. From what source was that information obtained?

A. From our records.

Q. From your records?

A. Yes, sir.

Q. That is not based upon information that you carry around in your head, is it?

A. No.

Q. In other words, Mr. Crumley, if you wanted to know what was the interchange of power for any particular date in 1937, 1938, or any prior period, from what source would you obtain that information?

A. From the records of the company.

Q. And would you rely upon such records?

A. Yes, sir.

Q. Is there any other source from which you could obtain that information?

A. No, not unless I asked the Public Service Electric and Gas for it.

Q. The other party to the arrangement who would have a record of the power which they received from you?

A. That is correct.

Q. From what source would they obtain that information?

MR. PAXSON: Objected to. They would not know—

BY MR. McALLISTER:

Q. (interposing) Where would you expect them to get their information, Mr. Crumley?

A. From their own records.

Q. From their own records, and those records would be records obtained in what manner?

MR. PAXSON: That is objected to.

EXAMINER SPENCER: I sustain the objection.

MR. PAXSON: I ask for an offer of proof.

EXAMINER SPENCER: It doesn't appear from any knowledge of the witness. The objection is sustained.

MR. PAXSON: It might be all right, I don't know.

BY MR. McALLISTER:

Q. Mr. Crumley, in your usual course of business if you were undertaking to determine the energy you had received at your connection with another company, from what records would you obtain that information?

A. From our own company records.

Q. Of what nature?

A. The log sheets which are made in our power plant at South Amboy?

Q. I said the power which you received from one of your connections.

A. Yes, they would be on our log sheets, that information.

Q. What log sheets, at South Amboy or at the substation where you receive the power?

A. Well, South Amboy is the place where we receive the power.

Q. Now let's step on west to the connection which you referred to at—

A. (interposing) Wrightstown and New Lisbon?

Q. Let's take Wrightstown and New Lisbon. What records do you have there showing the energy you receive?

A. We have bills submitted monthly by the Public Service Electric and Gas Company for the power they supply to us.

Q. You don't meter that as it comes in yourself?

A. They own the meters.

Q. They own the meters?

A. Yes. We are billed as any other customers of theirs would be billed.

Q. How about energy that you receive at Boonton?

A. We would get information on that source from our Boonton substation, from the log sheets kept at our Boonton substation.

Q. Is it customary to rely upon records that are kept at a substation?

A. Oh, yes.

Q. You say that is correct?

A. Yes, sir.

Q. And what is the reason for keeping log sheets at the substations?

A. In order that we might have a record of what takes place so that we can check bills that we might receive from New Jersey Power and Light Company or check bills that we send to the New Jersey Power and Light Company. That is the source of our information.

Q. Now did the log sheets at that substation as well as other substations which you operate, do those log sheets show other information also as to what is transpiring on the transmission line?

A. Yes, it shows the meter readings that are taken hourly so that we know the amount of power coming in and going out on the different circuits.

Q. Is that information that is contained on those log sheets information which you use in the ordinary course of your business in so far as it relates to that information which you say is shown by those readings?

A. Yes, sir.

Q. Would that be your only source of information as to what transpires on those lines? I mean eliminating what information you might be able to receive from some other substation, that would likewise contain a reading

as to the movement of energy on that same line, or one of them?

A. Yes, I would say so.

Q. In other words, by standing around the substation all day you would acquire no information if you didn't go to the indicating instruments that are on the board?

A. Well our substation operators are instructed to take this information off the instruments and record it on the log sheets.

Q. And except from those log sheets as to the past transactions you have no information as to what is transpiring in that substation?

A. No, the information, part of the information at least is taken from those log sheets and is recorded in our operating reports monthly.

Q. In other words, subsequent to the taking of the information the log sheets are utilized as a source for information which you transpose into your monthly reports?

A. That is correct.

Q. I am merely trying to see whether or not you have confidence in those reports, and place reliance upon them?

A. I do.

Q. In other words, those log sheets that are kept in the substation are, so to speak, the books of what transpired during that particular time?

A. Yes.

Q. What is your answer to that?

A. Yes.

MR. McALLISTER: Before I leave this question, Mr. Examiner, I would like to offer for the record a photostatic copy of the letter and report identified by Mr. Crumley as having been submitted by him to the Federal Power Commission and which he says is

true and correct. I offer that as Commission's Exhibit No. 20.

EXAMINER SPENCER: Any objection?

MR. PAXSON: Just a moment. I don't know whether it has any reference to the case or not.

MR. McALLISTER: You interrupted me.

MR. PAXSON: I was asking the question of the Examiner if I had any objection. You interrupted while he was asking me the question.

BY MR. McALLISTER:

Q. Here is the original, Mr. Crumley, and if you care to, compare it with that to see if that is complete.

A. That is complete.

MR. McALLISTER: As I attempted to say, Mr. Examiner, I would like to offer that as Commission's Exhibit No. 20.

MR. PAXSON: If the Commission please, I object to the introduction as an exhibit in this case any part of this proposed exhibit which refers to any transactions which may have occurred subsequent to March 14, 1938. Otherwise I have no objection.

EXAMINER SPENCER: Let the record show that the letter and attached statement is admitted as Commission counsel's Exhibit No. 20 over the objection of counsel for the respondent to that part thereof referring to any transactions subsequent to March 14, 1938.

(The document referred to was marked Commission's Exhibit No. 20 and received in evidence.)

BY MR. McALLISTER:

Q. Mr. Crumley, is there any new construction in

progress tying Jersey Central Power & Light with New Jersey Power & Light Company as appears to be in contemplation pursuant to the provisions of the contract between those parties, dated February 6, 1937?

A. No, there isn't any construction.

Q. There has been no construction up to this time undertaking to tie those lines together as is indicated in that contract to be the thought of the parties to the contract, that is, Jersey Central and New Jersey Power & Light Company?

A. There has been no construction.

Q. Prior to that contract of February 6, 1937, under the terms of the contract which was superseded you were under obligations to pay to New Jersey Power & Light Company a demand charge of $1,000 per month, isn't that true?

A. That is true.

Q. Now, under the new contract, the contract dated February 6, 1937, you no longer have that obligation to pay that demand charge of $1,000 a month?

A. That is true.

Q. That is eliminated?

A. Yes.

Q. So that today you receive whatever power you receive under the terms of that contract without the obligation attached by reason of this demand charge?

A. That is correct.

Q. That contract does provide, however, that when this further connection, which is to be constructed, and which you say has not yet been started, when that connection is made then New Jersey Power & Light Company will be under obligation to pay to you a demand charge without, on your part, there being any obligation to pay any demand charge to them?

A. That is true.

Q. What is that demand charge which they will be

called upon to pay to you when that provision of the contract becomes fully effective?

A. I would like to refresh my memory by looking at the contract.

Q. Mr. Crumley, I didn't know you looked at contracts.

EXAMINER SPENCER: He may refresh his memory. It is in evidence.

MR. McALLISTER: I was merely referring to the comments of counsel as to Mr. Grimsley refreshing his memory.

EXAMINER SPENCER: Mr. Grimsley was permitted to refresh his memory. Proceed.

THE WITNESS: The existing contract calls for a demand charge of $2,500 a month to be paid by New Jersey Power & Light Company to Jersey Central Power & Light Company when this connection is established.

BY MR. McALLISTER:

Q. I believe you stated, Mr. Crumley, that the Boonton connection was an emergency connection?

A. That is correct.

Q. That that connection remained open except at times when under an emergency, power was being delivered and of course then the connection would be closed?

A. That is right.

Q. Can you tell me how many times that connection was closed in 1937?

A. I don't have the data with me for the complete year of 1937.

Q. Well if that information was obtained from your company, on what records would you expect to find it?

A. From our log sheets.

Q. The log sheets at what substation?

A. At Boonton.

Q. At Boonton?

A. Yes, sir.

Q. You have certain of the information for 1937, do you, though?

A. I have.

Q. Well so far as you do have it, will you state it for the record, giving the dates?

A. On June 6, 1937, the connection was closed and we purchased, I think it was, 900 kilowatt hours, due to the fact our line was out between Whippany and Chatham.

On June 21, 1937 we purchased 200 kilowatt hours, the switch being closed due to the fact that lines were out, our lines were out between Whippany and Boonton.

On July 15th, for the same reason, the connection was closed. I am sorry this copy is so indistinct I can't tell whether it is 2,300 or 2,500.

Q. See if that will magnify it.

A. Will you show me a better copy?

Q. I don't know who supplied it to you. If any of your engineers have a better copy—

MR. PAXSON: If you will just wait a minute we will see if we can find one.

EXAMINER SPENCER: We will wait a minute.

MR. AUTENRIETH: I guess you will have to battle with that one. Oh, here is a better one.

EXAMINER SPENCER: All right, sir, proceed.

THE WITNESS: It was 2,200.

BY MR. McALLISTER:

Q. 2,200?

A. That is correct.

Q. Were those all the connections that were made, or are those the only times that switch was closed in 1937?

A. Well, from June on. From June on.

BY MR. AUTENRIETH:

Q. Is that from June on? I think there may be an error. If there is I want to correct it before we go too far.

A. That is right, it shows from January, 1937, to September 1938. So, that must have been the only three cases in that year, 1937.

BY MR. McALLISTER:

Q. Now will you give us the same information for the year 1938? In other words read in all the connections which you have for the period which is shown on the statement.

MR. PAXSON: If the Commission please, I object to the receipt of any testimony showing any transactions subsequent to March 14, 1938. I have no objection to any prior to that.

MR. McALLISTER: The information which the witness has goes up to a certain date in September and I ask that the entire information be submitted for the information of the Commission as being vital as to a showing as to just what this means.

MR. AUTENRIETH: Why not have the paper offered subject to objection?

MR. McALLISTER: I am having the information read on cross-examination.

MR. AUTENRIETH: Suit yourself.

EXAMINER SPENCER: The proceeding is somewhat irregular so far as the rules of practice are concerned in that on cross-examination the counsel for

the Commission is offering direct testimony.

MR. McALLISTER: Mr. Examiner, that isn't true. He says there were only incidental connections. I am not going beyond his direct examination.

MR. AUTENRIETH: If the Commission please, he didn't say it was incidental, it was only emergency.

EXAMINER SPENCER: I will make a ruling on this, whether my statement was true or untrue. The record will stand as I dictate it. Let the objection of counsel for respondent be noted as stated. That is, that he objects to any testimony on this cross-examination referring to any items subsequent to March 14, 1938, and the witness may proceed.

THE WITNESS: On March 24, 1938, the switch was closed evidently for just a moment and no energy was transferred.

On March 25, 1938, the connection was closed on account of a test we were making on the two systems. At that time 11,600 kilowatt hours were purchased.

On March 27, 1938, 9,700 kilowatt hours were purchased, the connection being closed on account of line work being done between Whippany and Boonton.

On April 11th, 700 kilowatt hours were purchased. The occasion that time was frequency regulation. We were disconnected from Public Service at that time and we connected with another system in order to keep our clocks and everything going.

May 1, 19,500 kilowatts were purchased, due to line work being done between Whippany and Boonton.

May 3rd, 1,100 kilowatts purchased account of frequency regulation again.

May 9th, 1,100 kilowatts purchased. Reason plant trouble at Raritan River plant.

June 1st, around 9,500 kilowatt hours purchased. Line trouble between Whippany and Boonton.

June 12th, 100 kilowatt hours purchased, same reason.

July 2nd, 9,900 kilowatt hours purchased, work on lines between Whippany and Boonton.

August 1st, 8,900 kilowatt hours purchased, tree on line between Whippany and Boonton.

BY MR. McALLISTER:

Q. Mr. Crumley, the importance of an emergency connection is not measured by the frequency with which a connection is closed, is it?

A. Well, I would say the importance does depend on how often you use it. But it might still be important, though, even if it were only used once or twice, that is true.

Q. Do you think this connection from the time that switch was closed, as indicated from the information you have just read into the record indicates that you do rely upon that connection when the line between Whippany and Boonton is out of service?

A. That is true.

Q. Mr. Crumley, at points of interchange, when the lines are operated with the switches closed and there is a surge of power from one company to the other, what becomes of that power in so far as the receiving company is concerned?

MR. PAXSON: Just a moment. Is he asking his opinion as an expert engineer generally or is he confining it to any particular company or service?

EXAMINER SPENCER: What do you mean

there? These connections with Jersey Central lines or other interconnections?

MR. McALLISTER: What did you say, Mr. Examiner?

EXAMINER SPENCER: The Jersey Central connections? You are referring to the Jersey Central connections?

MR. McALLISTER: I am merely asking the question. I haven't related it to any particular point, Mr. Examiner. I am asking him the question. If he can answer the question as it is stated, all right.

EXAMINER SPENCER: Read the question, Mr. Reporter.

(The reporter thereupon read the pending question as recorded.)

EXAMINER SPENCER: That does not relate to any particular company.

MR. McALLISTER: That relates to an answer which he made upon direct examination that that power does come in and it was referred to as incidental flow and slop-over.

MR. AUTENRIETH: I object to that because there is no testimony at Boonton there is any incidental or slop-over energy, and this question, if it is going to be stated generally, I move it be stricken as all slop-over and incidental energy is at South Amboy. Besides, that doesn't seem to be cross-examination.

EXAMINER SPENCER: There is direct testimony there was an interchange of current on occasions there.

MR. AUTENRIETH: Emergency at Boonton, slop-over and incidental was confined to South Amboy. Our contract says it was an emergency interchange.

EXAMINER SPENCER: The witness will recall whether on his direct examination he testified it was slop over or incidental energy at the point.

Mr. McAllister, can you confine your question—

MR. McALLISTER: (interposing) Mr. Examiner, I have asked him a perfectly fair question. I have not referred to Boonton and the witness knows full well, if you will read the question, I am not referring to Boonton. I prefaced the question by the switches being closed, and at Boonton he testified—

EXAMINER SPENCER: (interposing) The other connection is where?

MR. McALLISTER: What other? There are a lot of connections.

EXAMINER SPENCER: That he testified about? The one at Boonton and New Lisbon?

MR. McALLISTER: Wrightstown, New Lisbon, Conical Corners and Wrightstown are the same thing; and between South Amboy and Mechanic Street.

EXAMINER SPENCER: Mr. Reporter, read the question previous to the last one.

(The reporter thereupon read the question referred to as follows:)

"Q. Do you think this connection from the time that switch was closed, as indicated from the information you have just read into the record, indicates that you do rely upon that connection when the line between Whippany and Boonton is out of service?"

EXAMINER SPENCER: Now read the next one.

(The reporter thereupon read the pending question as recorded.)

EXAMINER SPENCER: Let the witness answer.

MR. PAXSON: I want to know whether this is a hypothetical question. I may not have any objection to it being answered, or whether it is to be confined to any facts or circumstances.

EXAMINER SPENCER: As he has stated, the two questions considered together would tie it in to the particular place. You may answer.

THE WITNESS: A surge of power would be absorbed into the system of the receiving company.

BY MR. McALLISTER:

Q. And utilized?

A. Yes, sir.

Q. Mr. Crumley, when power, electric energy on a line is utilized, by that do you mean it is converted into light, heat or power?

A. It is ordinarily sold to the customers and converted into light, heat or power, yes.

Q. Is it a fact, Mr. Crumley, ability to generate electricity, electrical energy, exist only simultaneously with consumption?

A. Yes, the transaction is instantaneous.

Q. In other words, if you have a generator on a line without any load other than the incidental energy produced to keep that line hot, that generator will not produce further energy than that requirement, is that true?

A. That is true.

Q. If over a certain connection you deliver a thou-

sand kilowatt hours of electrical energy, stated in horse-power what does that amount to?

A. A thousand kilowatt hours?

Q. A thousand kilowatts is what I should say. Hours would be the duration of the operation.

A. A thousand would produce roughly one and three-tenths times that.

Q. In other words something roughly over 1,300 horse power?

A. Yes, sir.

Q. And that stated in kilowatt hours would mean a thousand kilowatt hours would operate motors producing approximately 1,300 horse power over a period of an hour?

A. One hour; yes, sir.

Q. Generally speaking what was the horse-power required on an ordinary elevator in an office building such as this one here, if you know, Mr. Crumley?

A. No, it has been so long since I dealt with anything like that I don't recall.

Q. But would it be anywhere between 10 and 20 horse-power?

A. For one elevator?

Q. One elevator.

A. Yes, I guess so, somewhere in that neighborhood.

Q. Have you any information as to the lighting load that would develop from the lighting of a building the size of this building, twelve stories, if all the lights were burned, stated in kilowatts?

A. No, I don't know much about this building. I never saw it until two days ago.

Q. Any twelve story building of an ordinary size, within a range?

A. As I stated before I haven't dealt with those things for quite a while. I would suppose 50 to 100 kilowatts.

Q. So that a thousand kilowatts is a sizable piece of power when it is related to the work that it will do?

A. Yes, sir.

Q. Your answer is yes?

A. Yes.

Q. Through your connection at Wrightstown and New Lisbon, you purchase electrical energy from whom, is that the New Jersey Power & Light Company?

A. No, Public Service Electric and Gas Company.

Q. Public Service and Gas Company?

A. Yes, sir.

Q. I believe you stated on direct examination that you purchased power there to supply that area?

A. Yes, sir.

Q. Through your own distribution system?

A. That is correct.

Q. And that although you have adequate capacity on your system which would indicate an ability to furnish energy to that area, you do not have the necessary transmission lines to carry the energy to that location?

A. That is true.

Q. And it is more economical for you under the circumstances to purchase the energy from Public Service Electric and Gas Company to serve that area, and that, therefore you have not constructed the necessary transmission lines?

A. I can express it better by saying adequate lines. We have a line now from Hightstown to New Egypt, but it is too light and will require quite an investment to build an adequate line and the investment isn't justified by the small amount of business we have.

Q. Reliability is a factor to be taken into consideration in determining whether or not you will maintain certain connections?

A. Yes, sir.

Q. Reliability is a factor to be taken into consideration in determining whether or not you will construct certain transmission lines?

A. Yes, sir.

Q. And because it is desirable and indicated by good operating practice to furnish reliable service to the area which you serve locally in that district you have seen fit to make this connection which is designated as the Wrightstown-New Lisbon connection with Public Service Electric and Gas Company?

A. That is right.

Q. And it is necessary to furnish the kind of service that you desire to furnish to that community that you maintain that connection?

A. Yes, sir.

Q. And is important in that regard?

A. Yes, sir.

Q. Is it a common practice, Mr. Crumley, if you know, among other public utilities to purchase energy for delivery to one part of their system when their total capacity might indicate that they have or could produce sufficient energy to supply it, due to the fact that that area may be far removed from the points of production or generation?

A. I would say that is the common practice, yes.

Q. Would you say, Mr. Crumley, the importance of an interconnection with another operating utility is magnified by reason of the fact that the utility desiring the connection is only operating on its lines sufficient capacity to barely meet its load?

A. Under those conditions I think the interconnection becomes more necessary and more valuable.

Q. And would you say that it is vital to such a system if they are to be in a position to supply reliably the demands that might come upon them?

A. That all has to be figured out for each particular case, but—

Q. (interposing) But as you—

MR. AUTENRIETH: (interposing) Let hi finish.

BY MR. McALLISTER:

Q. Go ahead.

A. In a hypothetical case which you have just expressed where the receiving company has only enough generators on the line to barely take care of their load, the interconnection becomes very important.

MR. McALLISTER: Mr. Examiner, it is approaching 12:30 and if we might have a recess from now until two o'clock I believe I could complete the cross-examination of Mr. Crumley rather more quickly than going over my notes as they are here.

EXAMINER SPENCER: How many witnesses will you have?

MR. AUTENRIETH: I have no witnesses except Mr. Crumley.

EXAMINER SPENCER: How many have you?

MR. PAXSON: I have three witnesses.

EXAMINER SPENCER: We will recess until 1:30. Will that be sufficient time?

MR. McALLISTER: I would like to eat and then go over the notes. Two o'clock would be much better.

EXAMINER SPENCER: We will take a recess until two o'clock.

(Whereupon, at 12:20 o'clock p. m. a recess was taken until 2:00 o'clock p. m. this day.)

Afternoon Session

(Met, pursuant to the recess, at 2 o'clock p. m.)

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

THOMAS R. CRUMLEY

resumed the witness stand and, having been previously sworn, testified on behalf of the Intervener as follows:

Cross Examination (Resumed)

BY MR. McALLISTER:

Q. Mr. Crumley, the Jersey Central Power and Light Company operates in parallel with Public Service Electric and Gas Company, does it not?

A. Yes; it does.

Q. And Jersey Central Power and Light Company also operates in parallel with New Jersey Power and Light Company?

A. Well, I don't know about that. Probably they do part of the time; I don't know.

Q. Are you familiar with the contract between the Jersey Power and Light Company and Jersey Central Power and Light Company bearing date February 6, 1937, which was received in evidence this morning as Intervener's Exhibit No. 4?

A. Yes, sir; I am familiar with it.

Q. Does that contract provide for parallel operation with New Jersey Power and Light Company?

A. If parallel operation is permitted under that contract. We are not operating in parallel at the present time.

Q. In Article III, under "Operation", there is a provision relating to parallel operation, is there not?

A. No, sir. This does not refer to parallel operation. This refers to maintaining inter-connection facilities in accordance with good standard practice.

Q. Will you please read the second paragraph there, Mr. Crumley?

A. Do you mean for me to read it aloud?

Q. Yes.

A. (reading) "In order to avoid interference with the operation of the system of either company both par-

ties hereto agree to confer regarding operation in parallel with a system of any other company. Any excess k. v. a. capacity and service in either system may be utilized in absorbing the wattless current of both systems. The cost of generating and transmitting this wattless current shall be apportioned between the two companies in proportion to the respective benefits obtained."

Q. Of course, those last two sentences refer to another matter, and it is only the first sentence which relates to the question of parallel operation?

A. Yes. I said this contract permits parallel operation.

Q. If one of your emergency connections, the one to which you were referring this morning, at Boonton, is closed would it be necessary for you to operate in parallel with New Jersey Power and Light Company?

A. That could be handled in two ways. We might just use that power for one section of our territory there or we might operate in parallel.

Q. In other words, you must either operate in parallel or disconnect that section which would be served from your main operating system?

A. Yes, sir.

Q. In other words, you could cut off the section by opening switches so that that would operate under the control of the New Jersey Power and Light Company without affecting your other operations?

A. Yes, sir.

Q. But you must do either one or the other?

A. That is right.

Q. As a matter of operation, which method do you follow?

A. We generally follow the method of operating in parallel.

Q. You made reference to what you termed a verbal contract under which certain electric energy was supplied

from your company to Public Service Electric and Gas Company at the Mechanic Street Substation.

A. Yes, sir.

Q. Did I understand you to say that the terms of that verbal understanding were filed with the New Jersey Commission?

A. No; it was not filed with it. We do file with the Utility Commission every month the amount of power that has been transferred between the two companies, and the amount of revenue on same. And the engineers of the Utility Commission are familiar with how this arrangement works out.

Q. But you have not officially advised the New Jersey Commission of the existence of the verbal agreement or so-called verbal agreement?

A. We have advised their Chief Engineer.

Q. What I have in mind is a document going out over the signature of a responsible official of the Jersey Central Power and Light Company addressed to the Secretary of the New Jersey Commission or the Commission itself.

A. No, sir; because there is no written agreement on economy flow energy. It is a day to day arrangement.

Q. But what I had in mind was that the terms of the verbal understanding had not been made known to the New Jersey Commission through the medium of a communication addressed in the manner in which I have indicated.

A. Not in a formal manner; no, sir.

Q. If Public Service Electric and Gas Company has need for electric energy today, let us say, under what you have described as a verbal understanding or agreement they call upon you to furnish a designated amount of electric energy; just how would that information come to your company?

A. The system load dispatcher of Public Service Electric and Gas Company would ask our load dispatcher

or system operator how much available capacity we had operating above our own needs, that is, how much we could supply of it and at what price. Then he figures out what it would cost them to generate the same energy, and if there is a saving by buying it from us then they buy it, provided we can give it to them.

Q. When would that arrangement be made?

A. They usually get into touch with each other every morning, and perhaps sometimes during the day, as their load changes.

Q. In the determination of the price does the load dispatcher for his company bind his company as to what the price will be for that day?

A. Yes.

Q. Or a part of the day?

A. Yes, sir.

Q. If you had need for certain energy tomorrow, let us say, would they arrange for it today?

A. No, sir. They usually arrange for it the day they take it.

Q. From day to day?

A. Yes; from day to day.

Q. You would not expect them to arrange for it today?

A. No, sir; we would not.

Q. What is the high and what is the low price they agree upon, approximately, within your knowledge?

A. The price agreed upon is one-half of the sum of what it costs us to produce that power and what it would cost the Public Service Electric and Gas Company to produce the same power. That is the price at which it is billed. Of course, that varies with the price of coal. We interchange that information between ourselves all of the time. They know exactly what we pay for coal and we know what they pay for coal.

Q. Would you have one price today and another price tomorrow?

A. That happens quite frequently, yes, that the price is different. It is different in different parts of the day also. It varies at different parts of the day, depending upon our load and what units we have in operation.

Q. Take, for instance, 4 o'clock on any particular afternoon; how would the price be figured? I am assuming that you are at that time undertaking to arrange for the delivery of certain energy to Public Service Electric and Gas Company at Mechanic Street.

A. The system operators have built up curves for various conditions of load and for certain units in operation, and they know then from the load and the units in operation what the cost is at the price of coal at that time.

Q. Then by reference to these charts, without detailed computation at the time on their part, they can figure it out?

A. They can figure very closely what it is going to cost; yes, sir.

MR. AUTENRIETH: Will the witness speak a little louder, please. I can not hear him.

THE WITNESS: They can figure very closely what it is going to cost.

BY MR. McALLASTER:

Q. Mr. Crumley, as a matter of fact when they communicate with one another, do they at that time sit down and determine what the price is going to be?

A. They get the approximate price; yes, sir. Then, every few days they get together and check that and determine on the price.

Q. If the charts are uniform under certain conditions they know before they undertake to purchase it about what the cost is going to be?

A. Yes; that is right.

Q. Approximately every day in the year you do supply energy to Public Service Electric and Gas Company at Mechanic Street Substation?

A. We submitted and put into the record here a statement covering that.

MR. PAXSON: Just a moment, please. You mean it was offered by the Federal Power Commission. We did not put in that statement. We have no objection to it except the one objection I raised a little while ago.

THE WITNESS: That is right.

MR. PAXSON: We might as well correct that.

BY MR. McALLISTER:

Q. I put it in. But it is correct, isn't it?

A. Yes, sir.

Q. There is no question about the correctness of it?

A. Yes; it is correct. And it shows almost every day some power interchanged.

Q. And that information was supplied from the same sources that like information is supplied from in the annual reports that you file with the Commission?

A. Yes.

Q. The official records of your company?

A. That is correct.

Q. And all of the information you submit in your annual reports and the reports which you identified this morning is taken from your official records?

A. That is correct.

Q. The same information that you rely upon yourself in the course of your operations?

A. That is true.

Q. If you are studying operating conditions on your line, that would be the source of information which you

would go to, to determine what conditions are with relation to those particular things shown by the reports?

A. That is correct.

Q. Does the verbal arrangement to which you have referred alter or amend the provisions of the written contract which your have with the Public Service Electric and Gas Company for the delivery of energy under the conditions specified in the contract at Mechanic Street Substation?

A. No; it does not interfere with it.

Q. That is a firm and binding contract that is not presumed to be altered by any verbal arrangement?

A. That is correct.

Q. If you know, Mr. Crumley, what rate do you bill the Public Service Electric and Gas Company for the energy which you supply to them at Mechanic Street Substation under the verbal arrangement which you have described? Stated in mills per kilowatt hour, Mr. Crumley, what is the range of that price?

A. Oh, it is somewhere in the neighborhood of three mills.

Q. Would it sometimes be more than three mills? I haven't any particular reference to anything.

A. Yes; it would sometimes be higher and sometimes it would be lower.

Q. It sometimes would be lower?

A. Yes.

Q. Would it ever go up as high as four mills?

A. No; I don't think so.

Q. Would it be less than two mills at any time?

A. No.

Q. It would not be less than two mills?

A. No; it would not.

Q. What is the capacity of the connection which you have, the two circuits which join your South Amboy plant with Mechanic Street Substation?

A. A total of 25,000 k. w.

Q. At times you deliver to Public Service Electric and Gas Company at Mechanic Street Substation approximately the capacity of those lines?

A. Yes. I don't think we often get right up to 25,000, but we have been as high as 21,000 or 22,000, as I recall it.

Q. Sixteen thousand, eighteen thousand, twenty thousand and around in there frequently? Isn't that true?

A. Yes; it goes up there. Ordinarily it is below that point.

Q. The ordinary flow would be in the neighborhood of 10,000, would it?

A. Yes; and sometimes down as low as 5,000.

Q. I think you stated that under this verbal arrangement you also had the right to obtain power, when the requirement arose, from Public Service Electric and Gas Company?

A. Yes, sir. Under the same verbal arrangement, if Public Service Electric and Gas Company could produce power more cheaply than we could, no doubt we would buy power from them. But the power is generally going to Public Service Electric and Gas Company because our costs are lower than their costs.

Q. Mr. Crumley, have there been any times during the year 1937 when you were unable to supply power to Public Service Electric and Gas Company, either this power delivered under the so-called verbal agreement or under the written contract, that is termed "emergency power"?

A. Public Service Electric and Gas Company has not called upon us for any emergency power in 1937, I believe. In regard to economy flow power, there is no obligation whatever on our part to supply that. It is just a question of business. If it pays us to supply it, and if Public Service Electric and Gas Company want it, then

we supply it. If their costs are approximately the same as ours, and if there is nothing to be gained by either company in supplying that power, then we do not supply it.

Q. But you do supply that power practically every day?

A. Yes, very nearly every day there are some few hours during the day when it does pay to supply that power.

Q. And you have furnished it to them at that time, and you do furnish it to them then?

A. Yes, sir.

Q. What are the conditions that make it desirable for them to purchase power at those times?

A. Well, during the time of heavy demand naturally they would have to operate some of their less efficient units to carry their load. We can generate more cheaply than they can generate on their less efficient units, and the logical thing is for them to call upon us to supply that power if we can supply it more cheaply than they can generate it. But they must have the capacity to supply that power themselves. Otherwise it is not economy flow energy and we would not supply it to them if they did not have the capacity to supply themselves.

Q. In determining that capacity the cold standby at Perth Amboy would be taken into consideration?

A. No.

Q. If would not?

A. No; not if it is cold.

Q. As I understand it, it is cold. Is that your understanding?

A. Yes.

Q. Then, that point would not be taken into consideration?

A. No; not if it is cold.

Q. What points would be taken into consideration? I do not mean to name the points, but would you say

equipment or generators of a less efficient character would be taken into consideration in determining whether or not your costs or their costs were the highest?

A. Yes; that is true.

Q. Would it be a generator spinning on the line?

A. Yes.

Q. Or might be a generator that is closed down and not available?

A. It has to be available.

Q. At what times is that peak load—well, not the peak, but the heavy load of Public Service Electric and Gas Company?

A. I couldn't tell you exactly. I am not entirely familiar with Public Service Electric and Gas Company as to its operations, but I would assume it would be from 7 o'clock to 12 o'clock in the morning when their power load is on, and then there is a valley usually from 12 o'clock until 1 o'clock, and then it picks up at 1 o'clock, the heavy peak at this time of the year coming somewhere around 6 o'clock in the evening.

Q. This energy, no matter what you call it—emergency or economy or any other term you might apply to it—is the same electric energy, nevertheless?

A. Well, there is certainly a distinction between firm power and emergency power and economy flow energy.

Q. My question relates to the work that it will do in lighting bulbs or in turning motors, or such things as that. Now, just relating to that, Mr. Crumley.

A. That electricity will do the same work that any other electricity will do.

Q. The electricity in and of itself is the same thing: there is no distinction?

A. Yes; that is right.

Q. Except for billing and determining costs under the conditions under which it may be supplied, which may differentiate what you call it; but the energy in and of

itself is the same thing?

A. Well, it will do the same work, but there is an entirely different purpose as between firm power which the company is obligated to give and this economy flow energy which can be cut off at any time. There is a very marked distinction between those three classes of service.

Q. As classes of service, yes. But just addressing ourselves to the quality of the electric energy that flows, there is no distinction between them?

A. No; not in the quality of the electric energy itself; there is no distinction.

Q. Under this verbal understanding or agreement which you say provides for the delivery of the power or the energy, if you deliver 10,000 kilowatts at a particular time under that arrangement, it would do exactly the same amount of work as if it were delivered under the written contract or emergency provision?

A. That is correct.

Q. It comes from the same generator, or it could come from the same generator?

A. That is correct.

Q. And simultaneously, if the occasion arose, you might deliver energy from that generator to Public Service Electric and Gas Company, over the same lines at the same time, and you would bill part as economy flow and part as emergency?

A. I don't recall that that particular condition has ever existed. I can conceive that that might be done.

Q. It might very readily occur? I don't say that it has, but it could very readily occur if they had a breakdown in one respect and a need in the other and you were able to satisfy both demands, and then the energy would come from the same generator and go over the same two lines but the billing would be split?

A. Yes. That could be done.

Q. If you arrange and agree to furnish a certain quantity of energy at a particular time during the day, to the extent that you agree to supply that during that time it is dependable?

A. Yes, for the three or four hours that we agree to give it I would say that it is dependable. But if anything happened that our load increased where we could not give it, we would probably say that we could not give it; and they must have the capacity to supply it themselves, so we would tell them we could not supply it. I don't think it is a firm contract that we make for three or fours hours in advance.

Q. I mean reasonably dependent upon the amount you can supply in handling your load and which you might really count on.

A. Yes. I would say, if you always keep this one thought in mind, that they must have this capacity themselves and be able to supply that energy themselves.

Q. Mr. Crumley, when did this verbal arrangement or agreement come into being?

A. Between ourselves and Public Service?

MR. PAXSON: I did not hear the question. May I have it read?

EXAMINER SPENCER: Will the reporter read the question, please?

(The last question was then read by the reporter.)

BY MR. McALLISTER:

Q. What is your answer, Mr. Crumley?

A. It was about the time our South Amboy plant was put into commission.

Q. And that plant was put into commission back in 1931, was it, or was it in 1930?

A. It was toward the last of 1930. We were testing out the plant but did not go into full operation until 1931.

Q. Did you make that verbal agreement for and on

behalf of the Jersey Central Light and Power Company?

A. I approved it; yes, sir. The plan was worked out between the engineers of Jersey Central Power and Light Company and the engineers of Public Service Electric and Gas Company, and I approved it so far as Jersey Central Power and Light Company was concerned.

Q. Whom did you advise of the Public Service Electric and Gas Company that it was agreeable to you, or was that the means or manner followed in approving it?

A. I believe the man in Public Service Electric and Gas Company who approved it was a man named Penn, who was in charge of their production department.

Q. Are you referring to the Mr. Penn who is there now as general manager?

A. Yes, sir. At that time he was in charge of production.

Q. Your understanding was made with him? I mean your approval was related to him?

A. Yes, sir.

Q. And did he approve it on behalf of Public Service Electric and Gas Company?

A. Yes, sir; that is right.

Q. That is, so far as you were concerned?

A. Yes, sir.

Q. During the course of the hearing, Mr. Crumley, it was suggested here that where two operating systems are interconnected and there is a surge of power from one company to the other that the company which receives that surge of power can then push it back. In answer to a question this morning you stated that the surge of energy coming upon a line must necessarily be consumed on that line. Isn't that true?

A. Yes.

Q. Now, if you push back any energy to balance the surge which you have used, that must be energy which you generate or which has come to you from one of

your inter-connections? Isn't that true?

A. As a matter of practical fact, if we got the surge, that is, if Jersey Central Power and Light Company got a surge on our line from Public Service Electric and Gas Company, we would not attempt to create a surge back onto their lines.

Q. But if you did or if you delivered back an equal amount to counterbalance the amount that you had received in that manner it would be energy which you had generated or which you had received from some of your inter-connections?

A. Yes; I suppose so.

Q. It could not come from anywhere else, could it?

A. No. I think you are probably referring to my testimony in regard to this incidental flow of energy, are you not?

Q. That is right. It has relation to that. But I mean to say what comes over on to your line you use and what goes back on to their line they use?

A. That is right.

Q. To that extent it is a condition which can not be avoided but, nevertheless, it is energy that flows and has a utility on the lines which receive it?

A. That is true.

Q. And it goes out to light bulbs and turns motors and furnishes power and light and heat, the same as any other energy that you have on the line?

A. That is correct.

Q. Mr. Crumley, under the verbal contract that exists to which you referred, at all times when they have capacity to operate sufficient generating units and they call upon you to supply so-called economy flow energy from your South Amboy plant, you have the capacity which will enable you to supply it to them, to supply to them their requirements to the extent of the capacity that they have idling on the line?

A. I don't quite understand your question. Will you repeat it, please? I don't understand when you say "they."

Q. When I referred to "they" I referred to Public Service Electric and Gas Company. But let me put it in this way. If Public Service Electric and Gas Company has idling on the lines, their less efficient generators, to the extent of that capacity that is idling on Public Service Electric and Gas Company lines if they simultaneously call upon you, that is, the Jersey Central Power and Light Company, for that quantity of electric energy, you have the available capacity to supply it to them at all times, have you not?

A. Oh, no; not always, no. If we had turbines which are capable of producing 80,000 k. w. and the hour peak were 70,000, we would have 10,000 k. w. that would be available if the Public Service Electric and Gas Company wanted it and would pay us a little profit on it.

Q. That condition exists on your line at all times, doesn't it; that is, your generating capacity is always in excess of your requirements? Isn't that true?

A. No; I don't believe that is true. I do not believe that the turbines runnings would always be in excess of our demand, that is, sufficiently in excess to supply them any appreciable amount of energy.

Q. Day in and day out you do that?

A. Ordinarily.

Q. Then, ordinarily that is the condition under which you have operated through the year 1937 and in the year 1938 up to date?

A. Yes, sir.

Q. You referred to the fact the Jersey Central Power and Light Company and Public Service Electric and Power Company split the savings. If that is accomplished by adding together the cost of the two and splitting the energy at half, that automatically splits the savings, doesn't it?

A. That is right.

Q. There is no other manipulation of the price?

A. The theory is that each company should get half of the savings by generating that energy on the most efficient unit.

Q. Do you exchange data as to your loads and generators that are available and operating? I mean, do you interchange operating data so that they can determine approximately what will be available in forecasting their demands?

A. We do.

Q. I mean in forecasting their requirements.

A. We do.

Q. So that they can determine what will be a reasonable amount to take from you?

A. This whole arrangement is based upon mutual confidence in the operators of the two companies. We lay all of our cards on the table. We give Public Service Electric and Gas Company all of our costs, the price we are paying for coal and the efficiencies of our units, and if conditions are not normal we tell them, and we know then that we can not supply this power at the same rate, that it must be at a higher rate.

Q. And possibly more loads on your line at different hours?

A. Yes. We exchange all of that information very openly.

Q. And you know what their probable loads will be at various times?

A. Yes.

Q. Laying those down side by side or one upon the other, Mr. Crumley, you know almost as much about the requests received from them for this flow of power as if you were there on the other end making the request?

A. Well, I don't know that. We don't know all of the details about their load. We know what their costs

for the generating is for the different units, and they know the same thing with regard to our units. We do not know what their demand is on their entire system, or anything like that.

Q. But so far as your probable load in the area of South Amboy, you know what your probable surplus will be, and they can get that?

A. They telephone us and ask us how much available capacity we have.

Q. They might telephone to you in the morning and ask you how much you would expect to have?

A. Yes.

Q. And that will not vary a great deal from day to day?

A. No, sir; not a great deal. If it does and if any unusual conditions come up, the dispatchers get into touch with each other and iron it out.

Q. In your testimony this morning, Mr. Crumley, you made the statement—although I am merely paraphrasing it as I have not copied it down—that in arriving at your understanding or arrangement or contract with Public Service Electric and Gas Company no consideration was given to the arrangement between Public Service Electric and Gas Company and Staten Island Edison Corporation?

A. Yes, sir.

Q. By that you mean so far as you are concerned?

A. So far as my company is concerned.

Q. That is true so far as your own company is concerned?

A. Yes, sir.

Q. I believe you stated this morning, Mr. Crumley, that the net profit on this so-called economy flow energy sold to Public Service Electric and Gas Company in the year 1937 amounted to $10,000?

A. Somewhere in the neighborhood of $10,000.

Q. It was somewhere in that neighborhood?

A. Yes.

Q. Do you know what the gross receipts from that sale were?

A. I don't recall from memory. I don't know whether or not I have that here.

Q. I was induced to raise the question because you compared your net on those sales with the gross on other business, and I thought we should compare like with like.

A. The gross is $145,789.

Q. That was the amount which you received from Public Service Electric and Gas Company?

A. Yes, sir.

Q. Can you tell me what quantity of energy was sold for which that amount of money was paid?

A. That was 55,421,000 kilowatt hours.

Q. That is a relatively important item of revenue when you consider that it was derived outside of your own area, isn't it?

A. Any business today is important.

EXAMINER SPENCER: Have you any other questions, Mr. McAllister?

MR. McALLISTER: I have no further questions.

EXAMINER SPENCER: Mr. Paxson, have you any questions?

MR. PAXSON: No, Mr. Examiner.

MR. AUTENRIETH: May we take a recess for a few minutes before redirect examination?

EXAMINER SPENCER: Yes. At this time, Gentlemen, we will recess for five minutes.

(Thereupon a short recess was taken, after which the following occurred:)

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

Redirect Examination

BY MR. AUTENRIETH:

Q. Mr. Crumley, will you look at this Intervener's Exhibit No. 1, please, which is a map of the Jersey Central Power and Light Company system, and spot Comical Corners down in the neighborhood of New Lisbon and Wrightstown?

A. It is right here (indicating on map).

Q. And will you please mark it?

A. This (indicating) is Comical Corners right here, and I am indicating it by marking it with a blue pencil. That point (indicating) is where the lines divide, one going down to New Lisbon and the other up to Wrightstown.

Q. Now, Mr. Crumley, your attention was called to the contract between Jersey Central Power and Light Company and New Jersey Power and Light Company, a contract which existed prior to the one dated February 6, 1937, and to the payment of $1,000 a month under that contract to New Jersey Power and Light Company. Was there any reason why conditions changed so that that payment was eliminated by the change in that contract?

A. Yes, sir.

Q. What was it?

A. The load of New Jersey Power and Light Company had grown quite rapidly and the line from West Newton over to Boonton, where they connect—

Q. Do you mean West Wharton instead of West Newton?

A. I mean West Wharton to Boonton. The line from West Wharton to Boonton had become overloaded and they were unable to supply the amount of emergency power

that they had agreed to supply when that original contract was made; also they were getting into a position where they saw in the future they were going to need their power, and this contract was entered into upon the basis that neither company would pay a minimum charge to the other until facilities were built by New Jersey Power and Light Company to take firm power from us.

Q. Those facilities being referred to in the contract of February, 1937?

A. That is right.

Q. And at that time you were not getting value received out of your thousand dollars through a supply from New Jersey Power and Light Company?

A. We did not think so.

Q. So it was abandoned?

A. That is correct.

Q. Would you consider that incidental energy or slop-over under economy flow was in any sense a surge of electricity from one company to the other?

A. No, sir. I would not call it a surge, because usually it is a comparatively small amount of power.

Q. How do you define firm power?

A. I assume you are referring to the firm power contract or to a firm power contract between two utility companies?

Q. Yes.

A. Firm power is where one company contracts to supply a certain amount of power at all times to the other company. The contract usually extends over a definite period of time.

Q. And with a constant obligation to serve it?

A. Yes.

Q. With respect to your economy flow contract with Public Service Electric and Gas Company, under conditions where an emergency or an unforeseen load arose on Jersey Central system during a time when Jersey Central

Power and Light Company was delivering economy flow to Public Service Electric and Gas Company and this emergency curtailed the generation of Jersey Central Power and Light Company, would there be any hesitancy in immediately curtailing any part of or entirely the economy flow being delivered to Public Service Electric and Gas Company?

A. I would say—

MR. McALLISTER: May I hear the question read before it is answered?

EXAMINER SPENCER: Will the reporter read the question, please.

(The question was then read by the reporter.)

BY MR. AUTENRIETH:

Q. What is your answer?

A. No; there would be no hesitancy at all. Our dispatcher would immediately notify Public Service Electric and Gas Company that we could not supply this energy. He would probably tell him what the trouble was.

Q. Under your verbal agreement you had that right?

A. Oh, yes, of course.

Q. As between Public Service Electric and Gas Company and Jersey Central Power and Light Company is there any corporate affiliation now or has there ever been?

A. There has never been and there is not today.

Q. Did Public Service Electric and Gas Company ever own any of the securities of Jersey Central Power and Light Company?

A. They never have.

Q. Has Jersey Central Power and Light Company ever owned any of the securities of Public Service Electric and Gas Company?

A. It never has.

Q. Dealings with them have been at arm's length?

A. That is true.

Q. With respect to New Jersey Power and Light Company prior to March 14, 1938, did Jersey Central Power and Light Company ever own any securities of New Jersey Power and Light Company?

A. No.

Q. Did New Jersey Power and Light Company own any securities of Jersey Central Power and Light Company?

A. No, sir.

Q. Since March 14th the acquisition of the 32 per cent of common stock involved in this discussion was made by New Jersey Power and Light Company?

A. That is correct.

Q. And all of your dealings prior to the date mentioned with the New Jersey Power and Light Company were likewise at arm's length between them?

A. That is true.

Q. Some reference was made to the times when Jersey Central Power and Light Company took energy from New Jersey Power and Light Company at Boonton during periods when repairs were being made on your lines between Whippany and other nearby places. Was it possible to have made those repairs without cutting off the line?

A. Sometimes it would have been. We have two 3-phase lines on one set of wood poles. We could work those lines hot, but it is an expensive proposition to do that, and also it is rather dangerous. So rather than make the repairs while the lines are in service we buy power and connect with New Jersey Power and Light Company and disconnect our lines so that we can work on them.

Q. Those were the emergencies to which you referred in your previous testimony?

A. Yes, sir.

MR. AUTENRIETH: That is all.

EXAMINER SPENCER: Have you any questions, Mr. Paxson?

MR. PAXSON: We have no further questions of this witness, Mr. Examiner.

MR. McALLISTER: Mr. Examiner, I have a few questions in connection with matters that have arisen.

EXAMINER SPENCER: You may proceed, Mr. McAllister, with your examination.

Recross Examination

BY MR. McALLISTER:

Q. Mr. Crumley, a definite contract to supply a particular amount of energy for a definite period, let us say five minutes, might be firm power?

A. I never heard of a contract made on that basis.

Q. If it were made on that basis where you undertook to furnish a definite amount for a definite period of time and that time were five minutes but where it was financially advantageous to you or satisfactory to you, that would be a firm power contract, would it not?

A. That is a hypothetical case, I suppose. I never made a contract of this nature for less than five years in my life, I don't believe.

Q. Then, thirty days would not be firm power, under your definition. Suppose you took a generator out of line and it was the only available capacity and for the time it was out you agreed to supply a definite amount of energy for the requirements: that would be firm power you would be supplying under those conditions?

A. I would say it would be emergency power. You would not take the turbine out unless you had some trouble with it.

Q. Suppose I had made a prearrangement or pre-

arranged agreement with you for you to supply it; for instance, I want to rebuild it; it isn't anything that happens in emergency but I want to improve its operating conditions, renew parts of it, and so on, and I prearrange the whole matter and enter into a contract with you whereby you are to supply me during that time?

A. Oh, yes; that could be done.

Q. And that would be firm power?

A. It would be.

Q. As a matter of fact, it is pretty much a matter of agreement between the parties as to what you call it under certain circumstances? Isn't that true?

A. I suppose that is true. It all depends upon how the contract is worded.

Q. Mr. Crumley, how do you account for the fact that you have a definite, written contract for emergency service between your South Amboy plant and Mechanic Street substation, but with respect to this economy flow it is only a verbal arrangement, and you say that during the year 1937 you delivered 59,000,000 k. w. h. of energy under that verbal agreement and, as I understood your testimony, you delivered no energy under the written agreement?

A. When we entered into that contract with Public Service Electric and Gas Company or, rather, prior to entering into that contract Jersey Central Power and Light Company had been buying firm power from Public Service Electric and Gas Company, so most of the facilities were available, and it was common sense to make use of those facilities, so we entered into an emergency power contract so that we could supply energy to Public Service Electric and Gas Company if they were in trouble or they could supply energy to us if we were in trouble.

The economy flow energy arrangement developed as we went along. At the time we made the contract I don't think we had given very much consideration to the economy flow feature.

Q. If at any time Public Service Electric and Gas Company had imperative demands because of requirements on their line which developed an unusual load or what not, under that emergency contract they could call upon you for emergency energy and they would then be obligated to pay at the price specified in that contract?

A. That is correct.

Q. And they have the right to depend upon that under the conditions specified in the agreement?

A. That is right.

Q. Mr. Crumley, prior to the acquisition of the stocks of the Jersey Central Power and Light Company by New Jersey Power and Light Company on March 14, 1938—I am referring to the 345,350 shares—who held that stock prior to the acquisition by New Jersey Power and Light Company?

A. It was an affiliate of the Associated Gas and Electric—NYPANJ.

Q. Now, Mr. Crumley, that is a holding company that also owns the capital stock of the New Jersey Power and Light Company, isn't it?

A. I really don't know, to tell you the truth.

MR. McALLISTER: That is all.

BY MR. AUTENRIETH:

Q. There was no transfer on the books of Jersey Central Power and Light Company to NYPANJ? There was no transfer on the books of Jersey Central to NYPANJ of this stock, was there?

A. No, sir.

MR. McALLISTER: Is that a question?

MR. AUTENRIETH: Yes. I asked if there was. There was no transfer on our books. The only transfer was the transfer to New Jersey Power and Light Company.

BY MR. AUTENRIETH:

Q. You said stock owned by NYPANJ. We never transferred it on our books?

BY MR. McALLISTER:

Q. It was owned by them before though. It was not actually transferred on the books? Isn't that true?

A. My understanding is that it was. It was not transferred on the books.

BY MR. AUTENRIETH:

Q. You had no personal information on the subject, or have you?

A. No, sir. It was really hearsay.

BY MR. McALLISTER:

Q. It is a little more than hearsay, isn't it, Mr. Crumley? The application filed with the Securities and Exchange Commission declares that fact, does it not, if you have seen that?

A. I never read that.

MR. McALLISTER: That is all.

EXAMINER SPENCER: Have you any other questions?

MR. AUTENRIETH: I have no more questions.

MR. PAXSON: We have no other questions.

EXAMINER SPENCER: Then the witness may be excused at this time.

(Witness excused.)

MR. PAXSON: If the Commission please, it is now about 3:45 o'clock. Already we have had four pretty hard days here. This is Friday. Judge Autenrieth and I have a law practice, and all of us have families that we would like to return to. So I suggest that we adjourn at this time until Monday morning.

at such hour as the Commission sees fit to fix. If we were to continue on until twelve o'clock tonight we could not possibly finish with our case, even if there were no cross examination of the witnesses. I have been down here before the Commission many times, and it has always been the custom for the Commission to grant some concession to out-of-town attorneys.

EXAMINER SPENCER: What have you to say, Mr. McAllister?

MR. McALLISTER: Mr. Examiner, I am just as anxious as anybody else to conclude this case. I am perfectly willing to adjourn over Saturday; but I see no occasion for adjourning now. Yesterday we adjourned at 3:50 o'clock, and it is now 3:45. I can readily conceive that we could utilize some of this time. We have an hour that we can easily utilize and make some progress. As a matter of fact, we have put in but an hour this afternoon. I was a little late myself, and perhaps it was my fault. I say an hour; but it may have been an hour and a half.

MR. PAXSON: If the Commission please, none of us can get home tonight, if we do that. I live outside of New York City, and I have to get home. And I have to attend to some personal affairs.

I might add one other reason that, as a matter of fact, is compelling to this Commission. I also represent, as I said before, the Kentucky and Tennessee Light and Power Company which has a contract to dispose of a distribution system in Clarksville, Tennessee. There is a time limit on it. I have had conferences with the Acting General Counsel of the Federal Power Commission. They requested us to have this petition in promptly and I must go back so as to get it in here Monday or Tuesday. And really I must have a

little rest. I am very tired. That involves a great public interest. There is an absolute time limit on it, or the contract will expire. The T. V. A. is back of this. The public interest is of greater importance than the use of an hour this evening to continue the hearing in this case.

First I put it upon the consideration of courtesy; but if Mr. McAllister does not agree to that I will offer a compelling reason.

EXAMINER SPENCER: If we are to adjourn over the week-end in order to permit counsel from out of town to arrive home at a reasonable hour tonight, I think we should adjourn at this time until ten o'clock Monday, October 3rd.

(Whereupon, at 3:50 o'clock p. m., September 30, 1938, an adjournment was taken until Monday, October 3, 1938, at 10:00 o'clock a. m.)

Washington, D. C.,
Monday, October 3, 1938.

The hearing in the above-entitled matter was resumed, pursuant to adjournment, in Room 1201, Hurley-Wright Building, 1800 Pennsylvania Avenue, N. W., Washington, D. C., at 10:00 o'clock a. m.

Before:

Carroll B. Spencer, Trial Examiner.

Appearances:

As heretofore noted.

PROCEEDINGS

EXAMINER SPENCER: The hearing will be resumed. You may proceed, Mr. Paxson. Call your witness.

Whereupon

J. H. LYTLE,

a witness produced by and on behalf of the respondent, having been first duly sworn by the Examiner, was examined and testified as follows:

Direct Examination.

BY MR. PAXSON:

Q. Mr. Lytle, where do you reside?

A. 55 Valencia Street, Staten Island, New York.

Q. By whom are you employed, Mr. Lytle?

A. Staten Island Edison Corporation.

Q. In what capacity?

A. Consulting engineer and in charge of operations.

Q. Do you mean you have anything to do with the dispatch of the loads?

A. That comes under my jurisdiction.

Q. You are consulting engineer in actual charge of operations?

A. Yes, sir.

Q. Consulting engineer for Staten Island Edison Company in charge of actual operations?

A. Yes, sir.

Q. Are you a graduate engineer, Mr. Lytle?

A. Yes, I graduated from Villanova College in 1916. I received a degree of Bachelor of Science in Electrical Engineering.

Q. You are a licensed professional engineer for the state of New York, are you not?

A. Yes.

Q. Tell us a little bit about your experience.

A. Well, the first two years after I graduated from college I worked as electrician and draftsman for a coal company. At that time they were installing quite a lot of new equipment and changing the system from D. C. to

A. C. I had a good bit of work in connection with that, largely drafting work.

The next five years, from 1912 to 1917 I was employed by a public utility in central Pennsylvania, the Penn Public Service Company, as engineer. I had charge of all the engineering of that company. It was a relatively small company, but I had charge of all the engineering. That work I did, or the work that was done under my direction consisted of laying both transmission and distribution lines, installing additions to power stations, at two or three power stations, and of general engineering work that usually is done by a public utility company in a development stage. The company was growing very fast at that time.

That brings up to 1917. I went into the service late in 1917 as a reserve officer in the Navy, with the rank of Lieutenant, junior grade. After about six weeks training at the Naval Academy I was assigned to the Battleship Arizona as Electrical Officer. There I had charge of the Electrical Division. The Electrical Division took care of all of the electrical equipment of the ship except radio. That came under a separate division. There was about 50 or 60 men in the Division and we had charge of all motors, all fire control instruments, all electrical equipment except radio equipment.

After I left there I returned to Pennsylvania as assistant to the consulting engineer of Penn Public Service Corporation. That was a corporation formed by combining the property I had been with with another property. I had direct charge of all of the engineering for that company. The work consisted largely of, or the principal things were substation lay out and design, transmission line lay out and design, power station additions and lay-outs and so forth. I was there from 1919 until late in 1926 when I was transferred to the office of the J. G. White Management Corporation of New York City as as-

sistant to the Vice President in charge of Pennsylvania Electric Company, as I remember the name of the company.

In that work, the man under whom I worked was in charge of operations and construction and I worked as assistant on all phases of its problems. After about a year there I was transferred to Staten Island Edison Corporation and given the title of Consulting Engineer and later put in charge of operations of the system.

Q. All right, Mr. Lytle, tell us something about Staten Island Edison Company, what territory it serves, its generating stations and capacity, just generally.

A. Staten Island is a borough of Richmond. It is a part of New York City. The population is about 180,000 people. That is a rough figure. The area is about 57 square miles. Staten Island Edison Corporation is the only public utility giving electrical service on Staten Island. The load it serves consists of residential, commercial and power. Most of the industries on Staten Island are served by, their electric power is served by Staten Island Edison Corporation.

Q. Tell us about its generating stations, where they are.

A. There is one generating station at Livingston. I may add that Livingston is a locality, a local term. It has no corporate existence. It is located on the north shore of Kill van Kull. Kill van Kull is a body of water that separates Staten Island from Bayonne, New Jersey. The power is all generated there and distributed all over, all parts of Staten Island.

Q. Staten Island is a distribution company then, isn't it?

A. Yes, sir.

Q What is the capacity of this generating station at Livingston?

A. The rated capacity is 47,500 kilowatts.

Q. That is the rated capacity?

A. The name-plate rating.

Q. How much did you say?

A. 47,500 kilowatts.

Q. Are you familiar with the contract under which certain power passes between Staten Island Edison Company and Public Service Electric and Gas Company?

A. I am.

Q. I show you this contract and ask you if that is the contract under which the Staten Island Edison Company operates over this interconnection which has been testified to between the Public Service Electric and Gas Company and the Staten Island Edison Company?

A. It is.

MR. PAXSON: I ask that this be marked for identification. This is a letter contract dated January 29, 1936, between Public Service Electric and Gas Company and Staten Island Edison Corporation.

I offer this as an exhibit.

EXAMINER SPENCER: Any objection?

MR. McALLISTER: No objection.

EXAMINER SPENCER: Let it be received in evidence as Respondent's Exhibit No. 1.

(The document referred to was marked Respondent's Exhibit No. 1 and received in evidence.)

BY MR. PAXSON:

Q. Now, Mr. Lytle, tell us what is the physical set-up of this interconnection between Staten Island and Public Service Electric and Gas? Just describe it generally for us. Tell us what it consists of.

A. It consists of two 350,000 circular mill cables, connecting Mechanic Street Substation of the Public Service

Electric and Gas Company, located in Perth Amboy, New Jersey, and the Atlantic Substation of the Staten Island Edison Corporation, located in Staten Island. There are also two banks of transformers that change the voltage from 26.4 KV to 33,000 KV.

As I understand it, each company built and paid for that part of the interconnection running from the substation to the shore of Arthur Kill. The Arthur Kill is a strip of water separating Perth Amboy from Staten Island. At that point Staten Island Edison Corporation paid for the equipment that runs from Atlantic Substation to the shore line of the Arthur Kill on the Staten Island side. The submarine cable under the water, each company paid for half of that, so that each company owns up to the state line, the boundary line between New Jersey and New York running along the middle of this Arthur Kill, each company paid for cable up to that point, or about half of the total submarine cable.

Q. Where are the meters?

A. There are meters on both sides.

Q. There are meters on both sides?

A. Yes, meters at Atlantic Substation and Mechanic Street and circuit breakers at Staten Island and Mechanic Street and other switches, other disconnecting switches and so on.

Q. You were giving capacity and I think you said in one case it was 33,000 KV, but you really meant 33 KV?

A. Yes. I wish you would correct that. It is 33 KV, 33,000 volts.

Q. Are there switches located at both of these substations controlling the flow?

A. Yes, there are switches located at both substations so that opening the switch will render the interconnection open. It can be done in either substation.

Q. What is the normal position of these switches, open or closed?

A. The normal position is closed at both ends.

Q. You said you were in charge of operations of Staten Island Edison Company. Suppose you explain in your own way just how you operate this, how you have operated it between the periods August 26, 1933 and March 14, 1938? How has it been operated?

A. It has been operated primarily for emergency service, as it has been operated primarily to supply Staten Island in case of breakdown of facilities. In case of a breakdown of our facilities we are under obligation to notify the Public Service Electric and Gas Company load dispatchers that we are taking emergency power. When our facilities are back to normal we notify them that the emergency period has ended. That is the principal use of the interconnection, the principal reason for it.

Q. What is the yearly amount of energy passing over the years intervening between the two dates I have given you? What would you say would be the normal use for every emergency purpose from the standpoint of time?

A. In that period of time I would say about ten cases of emergency. Now some emergencies only lasted a minute and some two minutes, just about the time required for switching. One or two lasted longer. I think one in that period lasted about four hours. That is a rough idea of how it has been operated. I don't believe in that period there was any time when we took our entire supply from them.

Q. Mr. Lytle, have you prepared any statements which show just how often this interconnection was used for emergency purposes between August 26, 1935 and March 14, 1938?

A. Yes, I have. Shall I read them?

Q. You have there a memorandum entitled Purchases of Emergency Energy, Staten Island Edison Company Corporation for various periods of time, one for August 26, 1935 to December 31, 1935, is that correct?

MR. McALLISTER: Mr. Examiner, I think the witness ought to be permitted to state what he has.

MR. PAXSON: I am just trying to expedite it.

EXAMINER SPENCER: He is just trying to expedite it.

BY MR. PAXSON:

Q. Will you tell me what the statement is?

A. I will. It is

MR. McALLISTER: (interposing) If he is going to read them

MR. PAXSON: (interposing) I will do it any way you like.

BY MR. PAXSON:

Q. Will you tell us what you have there?

A. I have a statement here, the title is Purchases of Emergency Energy August 26, 1935 to December 31, 1935, another sheet for 1936

Q. (interposing) That is purchase of emergency energy?

A. The title is the same. The last one is purchase of emergency energy January 1, 1938 to March 14, 1938.

Q. You have one for the year 1937, do you or not?

A. I think I mentioned it. I have one—suppose I give those over. The title of all these sheets is Purchases of Emergency Energy, one sheet August 26, 1935 to December 31, 1935, the next sheet is all of 1936, the next sheet is all of 1937, and the next sheet is from January 1, 1938 to March 14, 1938.

Q. Where did the information contained on these sheets come from?

A. From the company records. It comes from the system operators and from the Public Service Electric and Gas Company. It comes from the system operators.

comes from the men under me and from the Public Service Electric and Gas Company. We have to check with them.

Q. Well, Mr. Lytle, tell us how many purchases of emergency energy were made by Staten Island Edison Corporation, let us work backwards from January 1, 1938 to March 14, 1938.

A. From January 1, 1938 to March 14, 1938 there was one emergency period on January 25th, beginning at 1:00 a. m. and lasting until 3:35 a. m. The energy received was 1,000 kilowatt hours.

Q. That is all for 1938 between those periods?

A. Yes, sir.

Q. How many purchases of emergency energy were there for the year 1937?

A. There were three periods. I will read them, February 22nd, 1:44 a. m. to 5:50 a. m., 3,400 kilowatts; June 3rd, 2:38 p. m. to 2:39 p. m., no kilowatt hours. Now that means, while there was an emergency or declaration of emergency, the amount taken was so small the Public Service meters didn't show it. It was probably considerably less than a dollar in value under the contract.

Q. This emergency took one minute of time?

A. From 2:38 p. m. to 2:39 p. m., one minute.

Q. When was the next one?

A. August 21st, 7:06 a. m. to 7:08 a. m., two minutes, no kilowatt hours recorded.

Q. Then the purchases of Staten Island emergency energy from Public Service Electric and Gas for the year 1937 were in the aggregate how much?

A. 3,400 kilowatt hours for the year 1937.

Q. There were two other declared emergency periods of one minute?

A. That is right, one was one minute and one was two minutes.

Q. That is right, but the amount taken was not appreciable, not recorded?

A. They could not find it on their meters. When we take emergency we go by their meters.

Q. All right, Mr. Lytle, how about the year 1936? What were the purchases of emergency energy of Staten Island Edison Corporation?

A. I will give them in order. February 25, 1936, 6:44 a. m. to 6:46 a. m., no kilowatt hours registered.

Q. That was just the same?

A. It was a very short emergency at a period of light load. It was so very little they could not find it.

June 18th, 3:35 p. m. to 7:39½ p. m., 383 kilowatt hours; August 12th, 9:37 a. m. to 9:38 a. m., 75 kilowatt hours.

Q. That lasted a minute, but you were able to get something?

A. Public Service was able to get something.

Q. That was 75 kilowatt hours?

A. That is right. August 13th, 2:25 a. m. to 2:47 a. m., 3,213 kilowatt hours, and on August 13th, the same date, 3:07 a. m. to 3:11 a. m., that is included in this 3,213 kilowatt hours. The trouble extended from 2:25 a. m. until 3:11 a. m. There were two emergency periods in there with a period between them during which we carried our own load. There was some trouble on the system. The total of 3,213 is the total for both those periods on August 13th.

The last one is December 11th, the last one in 1936, 8:29 a. m. to 8:30 a. m., 54 kilowatt hours.

Q. That is all purchases of emergency energy made by Staten Island from Public Service in 1936?

A. That is right.

Q. What is the aggregate kilowatt hours?

A. For 1936?

Q. Yes.

A. I will add it up.

Q. Just add it up.

A. I get 3,725 for the year 1936.

Q. Now how about for the period between August 26, 1935 and December 31, 1935? Did Staten Island Edison Corporation purchase any emergency energy from Public Service Electric and Gas?

A. August 26, 1935 to December 31, 1935? is that the period?

Q. Yes.

A. They purchased it once, November 3rd, 6:49 a. m. to 6:50 a. m., and no kilowatt hours registered.

Q. There was a slight technical emergency for apparently a minute of time but nothing purchased?

A. That is right, no kilowatt hour charges were made, but we paid a demand charge.

Q. You paid for no energy under this contract that has been offered in evidence?

A. That is right.

MR. PAXSON: If the Commission please, while Mr. Lytle has testified to all these facts, I would be glad to offer this statement as an exhibit for the convenience of Commission and counsel, if they desire a copy.

EXAMINER SPENCER: Let the statement be admitted as Respondent's Exhibit No. 2.

(The document referred to was marked Respondent's Exhibit No. 2 and received in evidence.)

MR. McALLISTER: I have no objection so far as the exhibit goes, but I ask that the respondent furnish also for the period subsequent to March 14, 1938 a statement showing the emergencies that have arisen down to date so that the record will show what has transpired not only before the date of March 14,

1938, which Mr. Paxson holds to, but subsequent to that date, indicating the continuation of the arrangement.

There is no question about the contract remaining in force and effect, I don't think, but what has transpired under the contract subsequent to that date also has some bearing upon the issue here as indicating that the same conditions have prevailed subsequent as did prevail prior to that time.

MR. PAXSON: If the Commission please, no transactions which occurred subsequent to March 14, 1938 are any part of our case. As the Commission realizes, I have endeavored to consistently object to anything being introduced by the other side which has to do with transactions subsequent to that date. I might say this, we have no objection to giving the information to counsel for the Commission if he desires it. I will certainly not be inconsistent and offer it myself.

MR. McALLISTER: I ask that information be supplied by the respondent for the record in this case. I make that request formally at this time. It is peculiarly within the knowledge of the respondent. They have it, and they can file it very readily with the Examiner for the record in this case, and I think it is only reasonable that it be done in order that the record be complete in that respect.

MR. PAXSON: Off the record.

EXAMINER SPENCER: Off the record.

(Discussion off the record.)

EXAMINER SPENCER: The situation is simply this. At this time I am not ruling on the question until after this cross examination. You may proceed.

BY MR. PAXSON:

Q. Now, Mr. Lytle, you also have some economy flow operations over this line, don't you?

A. Yes, sir.

Q. Tell us about them.

A. Well, we take what we call economy flow power when we think we can make a little saving in operating expenses. However, it is very highly restricted, the whole arrangement. To begin with we always have to have in operation capacity enough to carry our own load, whether we are taking some economy flow power from Public Service or not.

The way we handle it is this. Say today we estimate that our load will be a certain value tomorrow. Now it may be that we feel we ought to run two machines tomorrow or three machines or an additional machine more than we would run if we could get a little power elsewhere, so we get in touch with the generating department of Public Service. When I say Public Service I am referring to Public Service Electric and Gas. We get in touch with them and ask them what their increment cost of generating an additional 1,000 or 2,000 kilowatts would be. We have charts and curves, cost data, test data and so forth; so that we can predict quite accurately what it will cost us to make an amount that we might wish to buy. It is usually a fairly small amount, a fairly small portion of our total.

If the cost that Public Service quotes us is less than what it would cost us, we split the difference and buy some at that average cost.

Does that make it entirely clear?

Q. In figuring this cost it is based exclusively and solely on the cost of running the Public Service Company's generators?

A. Oh, yes. It is our understanding we have the increment cost will be based on their generating cost.

What it costs them, not the average generating cost, not the average for the whole plant, but it works out, it is the cost of their least efficient generator. Naturally their more efficient units carry the base load. As the load comes up, as they put on machines, they are always less efficient, so this increment rate they quote us is the increment rate of the last generator they put on, which is the least efficient.

Q. And that cost is based on that particular generator only and not average cost?

A. Yes, sir.

Q. Did you take any economy energy from Public Service Electric and Gas Company in the time between the period January 1, 1938 and March 14, 1938?

A. We took very little during that period.

Q. Did you take any?

A. We took a little; yes, sir.

Q. Have you got a statement of purchases of economy energy by Staten Island Edison Corporation from Public Service and Electric and Gas?

A. I think I have.

MR. McALLISTER: Off the record.

(Discussion off the record.)

THE WITNESS: I have a statement.

BY MR. PAXSON:

Q. Have you got such a statement?

A. I have a statement that shows the purchases of so called economy energy for the year 1937, the year 1936 and from August 26, 1935 to December 31, 1935. I have nothing for the year 1938 from January 1st.

Q. To March 14th?

A. To March 14th, because they wasn't any.

Q. Then your statement which you made from recollection before refreshing your mind with this memorandum was inaccurate when you said you thought there was some

economy flow between January 1, 1938 and March 14th, 1938?

A. If I said any in 1938 to March 14th, it was incorrect. We took none up to March 14th.

Q. No purchases of economy energy up to March 14, 1938?

A. No.

Q. Let us work backwards, let us take 1937. When was economy energy purchased for Staten Island from Public Service Electric and Gas, and how many times?

A. Two times only in 1937, the whole year.

Q. Just twice in the year, 1937, is that right?

A. That is right.

Q. And none between January 1, 1938 and March 14, 1938?

A. None.

Q. Just tell us about this transaction, the dates, quantities and times.

A. Will you repeat your question, Mr. Paxson?

Q. Just tell us the dates and times and amounts of kilowatt hours taken in those two instances in 1937.

A. In 1937 we purchased economy flow energy April 29th, from 7:30 a. m. until 5:45 p. m., a total of 9,100 kilowatt hours. April 30th we purchased economy flow energy from 10:00 a. m. to 5:30 p. m., a total of 4,500 kilowatt hours.

Q. What is the total of the kilowatt hours of economy flow energy in that year?

A. 13,600, those two days, that is all there was in that year.

MR. McALLISTER: What is that, 13,600?

THE WITNESS: 13,600, 9,100 and 4,500, unless I have made a mistake.

BY MR. PAXSON:

Q. Well then, 13,600 kilowatt hours represents the

entire amount of economy flow energy taken by Staten Island from Public Service Electric and Gas for approximately 15 months prior to March 14, 1938, is that right?

A. That is right.

Q. Now, how about the year 1936?

A. In 1936 we took some on different dates, several different dates.

Q. Well, there is quite a few more.

A. Quite a few more, yes.

Q. During what months would you say that was taken?

A. One in March, two in April.

Q. Twice in April?

A. Only once in March, twice in April, nine times in May, 14 times in June, 10 times in July.

Q. And the rest of the year of 1936 you took none?

A. That is right.

Q. How about the period from August 26, 1935 to December 31, 1935? Were any purchases of economy energy made by Staten Island from Public Service?

A. In that period? From August 26, 1935 to December 31, 1935?

Q. Yes.

A. Ten times.

Q. Then on these statements you have got the exact times, what day, as well as the date on which economy energy was purchased?

A. Yes, sir.

Q. For instance, take this period August 27, 1935 where you say from 9:00 a. m. to 4:00 p. m. Would you know whether the flow was constant between that time, or could you tell? You have just given the two periods between which 7,900 kilowatts were taken?

A. That is right. I can't tell.

Q. Those are the outside limits of time?

A. Those are the outside limits of time.

Q. During which 7,900 kilowatt hours was taken?
A. During which 7,900 kilowatt hours was taken.
Q. During which 7,900 kilowatt hours was taken?
A. Yes, sir.
Q. And you have on the outside right-hand column the number of kilowatt hours of energy that was taken in each of the instances listed, is that correct?
A. That is right.

MR. PAXSON: Now, if the Commission please, I offer this statement as Respondent's Exhibit No. 3, purchases of economy energy by Staten Island Edison from Public Service Electric and Gas for the period August 26, 1935, to March 14, 1938.

MR. McALLISTER: Mr. Examiner, I make the same objection in connection with this exhibit as I made with respect to the previous exhibit, and ask that the respondent supply for the record information as to the time when economy energy was supplied to Staten Island by Public Service subsequent to the period ended March 14, 1938. I don't know just which way Mr. Paxson thinks so far as the 14th is concerned, but I presume that there was no flow on the 14th or you would report that?

MR. PAXSON: If you are not clear about that I think I had better bring it out in the exhibits.

MR. McALLISTER: I think that would be entirely appropriate.

BY MR. PAXSON:

Q. Mr. Lytle, in all of these exhibits which purports to give the amount of emergency power taken and economy flow taken between the period January 1, 1938 to March 14, 1938, is March 14, 1938 inclusive?
A. It is inclusive; yes, sir.

MR. PAXSON: I think that answers that question.

BY MR. McALLISTER:

Q. I also understand it is to be your testimony that your records do not show any economy flow from January 1, 1938 to March 14, 1938?

A. Economy flow in 1938?

Q. Yes.

A. No, it didn't show any.

MR. McALLISTER: So my request, Mr. Examiner, is limited to the period subsequent to March 14, 1938, down to the present time, reasonably near, I am not greatly concerned about the time, but let us say up to the beginning of this hearing, and for that information I now make formal request upon the respondent.

EXAMINER SPENCER: Let the statement of purchase of economy energy be admitted as Respondent's Exhibit No. 3, and on the request of counsel for the Commission ruling will be made later.

(The document referred to was marked Respondent's Exhibit No. 3 and received in evidence.)

EXAMINER SPENCER: You may proceed.

MR. McALLISTER: May I have an exception to the Examiner's ruling, please?

EXAMINER SPENCER: Yes.

BY MR. PAXSON:

Q. Now, Mr. Lytle, you have testified as to the quantities of electrical energy coming from Public Service Electric Gas Company to Staten Island Edison Company in so far as the emergency transactions and economy flow transactions are involved.

Now besides those two types of transactions do you have any incidental, involuntary or slop-over power flowing over this connection?

A. Yes, we have.

Q. Explain that to us a little bit.

A. It is practically impossible to prevent energy flowing over a closed interconnection of this type. There is a certain amount of energy that is uncontrollable. I might say unpredictable. That isn't very close, but it just comes and we put up with it. We call it incidental power because it is something we didn't ask for and don't want. We just can't help it.

So long as the interconnection is closed it is going to flow. It flows away from us and to us. We have no control over the times. Our own operators are instructed at all times to keep it down to a minimum. That is consistent with our arrangement with Public Service Electric and Gas Company. We have no right to deliberately take it. We don't deliberately take it. We send it back as soon as we can. Our operator has a meter in front of him. There is an operator at the office from which the system is controlled and a meter that reads both ways. His instructions are and as far as I know they always do it, to keep that indicator on zero so there won't be any. You can't do it perfectly. Some goes over, some goes both ways.

Q. As I understand what you told us you make an effort to keep this indicator at zero, but because you have what we call a closed interconnection some power is likely, or in the natural course of events slips over one way or the other. It is like the ebb and flow of the tide. Is that a pretty good figure?

A. That is a pretty good figure, yes. We do the best we can and don't do it perfectly. Let us put it that way.

Incidentally, I have cautioned my men from time to time, time and time again to keep that on zero within the limit of the line's ability to do it; and it would be violating

our agreement with the other companies to deliberately take the power and we don't need it anyhow.

Q. And you don't want it?

A. And we don't want it.

Q. When it comes over, what do you do about it?

A. It is metered. Well, when it comes over, as soon as he sees it coming over, the operator changes the load on our plant. When it comes over to us he picks up that load, raises the load in our plant so it won't come over. If it is going the other way he reduces the load.

Q. In other words, he stands there in front of the indicator and if he sees incidental power coming over he makes every effort to push it back by putting on steam?

A. What he actually does, he adjusts the turbines, he telephones to the power station, there is a direct line, no time lost, he tells them to pick up some load or drop some load, whichever is necessary to reduce that to zero as near as possible.

Q. But you say you don't want the power?

A. No; we don't want the power.

Q. If you have the switch open I don't suppose you would get it, would you?

A. No.

Q. Why do you keep the switch closed, then?

A. We keep the switch closed for emergencies. We keep the switch closed to safeguard our customers. We are selling service.

Q. And you think it better to keep that switch closed in order to get your emergency service when you need it even if as an incident thereto some of this power goes back and forth?

A. Yes, I think it is better.

Q. Does this incidental flow have any commercial significance?

A. Has no commercial significance at all. We don't want it. We send it back as soon as we get it regardless

of what our load is. No matter whether our load is light or heavy, we stop it right away. We have to supply our customers with service. You picture yourself, suppose you consider this incidental power alone and you are reading, you are a customer of ours, for two seconds you were able to read and two seconds your lights go out. It is ebbing and flowing the other way. It is out for a few minutes and comes on. We could not sell that service. That has no commercial value. We could not do business that way.

Q. Mr. Lytle, do you buy any firm power of Public Service?

A. No, sir.

Q. Do you sell any firm power to Public Service?

A. No, sir.

Q. Do you have any firm power agreement with any other company of a public utility nature?

A. No, sir; we have no firm power agreement with any of them.

Q. Now getting back again to this incidental power, does it affect your normal operations in any way, this incidental power coming over and going back?

A. No. We would operate exactly the same if we could prevent its coming over. It does indicate a certain amount of loss. That is the disadvantage of the thing.

Q. Do you use this incidental power to meet your load or depend upon it?

A. Absolutely no dependence placed upon incidental power. Absolutely none.

Q. Do you know where the emergency power or economy flow power supplied to you from Public Service Electric and Gas Company comes from?

A. We get it from Mechanic Street Substation of the Public Service Electric and Gas. All our negotiations, all our agreements, all our talks with them, they led us to believe that it was power generated by Public Service Electric and Gas Company.

Q. When it comes to the question of determining how much you will pay for this economy flow power do you have a right to inspect their figures so as to be certain of that?

A. Yes. We have a right to inspect it in as much detail as we want their generating cost, and they have the same right with us. They have been over there and checked. We don't do it every time. They take us on faith when we quote figures and we take them on faith when they quote us. Representatives have been over at Staten Island, representatives of Public Service, checking our costs and inspecting our plant. We believe one another when we quote a price.

Q. Mr. Lytle, is there any arrangement, any contract, any understanding, written or verbal of any kind, character or description whereby you are entitled to receive any power from Jersey Central Power & Light Company?

A. No, sir.

Q. Over facilities owned by the Public Service? Do you have any dealings with them?

A. None at all.

Q. You, of course, do know that Jersey Central Power & Light Company does supply some power to Public Service?

A. We know they are interconnected. Just what their arrangements are we know absolutely nothing except what we pick up generally. We know they are interconnected. The Jersey Central Power & Light Company, I don't know what all they have. They have never been mentioned in our price negotiations. We always understood we were getting it from Public Service, anything we got.

Q. That was always your understanding?

A. I always thought they supplied it.

Q. Still think it, don't you?

A. Well, they do.

Q. Of course they do supply it.

MR. McALLISTER: That is going a little bit too far.

BY EXAMINER SPENCER:

Q. Do you know whether they do supply it?

A. Whether?

Q. Do you know of your own knowledge whether it is supplied by Public Service?

A. It has always been my understanding they supplied it.

Q. You do not know?

A. I have never gone into any part of their interconnection, I have never had any right.

BY MR. PAXSON:

Q. Then your transactions with Public Service are in no way related to transactions of Public Service with Jersey Central?

A. No.

MR. McALLISTER: Just to clear that up you are referring to contractual relations?

MR. PAXSON: I say transactions, which mean any transactions between Staten Island Edison and Public Service Electric and Gas, whether it is contract, whether it is an oral arrangement, whether it is an understanding or anything.

BY MR. PAXSON:

Q. Any transaction that they have with Public Service, as far as you are concerned, Staten Island Edison is concerned, is in no way related to what Public Service may have had at any time or the same time have with some other company like Jersey Central?

A. No.

EXAMINER SPENCER: All right.

BY MR. PAXSON:

Q. Do you know whether Public Service has generating capacity available on its circuit which supplies Mechanic Street sufficient to supply you with the power?

A. I do from general knowledge. I don't mean something I read some place, but in talking with the other fellows they tell us how they operate, what capacity they have on, what their peak load is, and I know positively from that that they have more capacity available than we take or would take. As a matter of fact, more than we could take.

Q. Now there is one question I want to ask you in connection with incidental power which I forgot at the moment.

You say every effort is made to send it back. Over the course of a year with respect to this incidental power does it balance or doesn't it?

A. It balances pretty closely. I haven't got the exact figures, but it balances pretty closely. I do remember this, as a percentage of our output it would not be one half of 1 per cent, the difference in what we supply for emergency power or what they supply us, or vice versa. That difference is negligible. It is less than one-half of 1 per cent of our output.

Q. Are you talking now about the energy that flows no matter what type or are you giving your percentage as to the incidental power?

A. I am talking about the incidental power.

Q. The amount which comes over from Public Service of incidental flow would not be one half of 1 per cent?

A. No, the difference in what comes over from them, over or under the amount that comes to them from us would be less than one-half of 1 per cent of our total system output, our total generation. It is very small. In fact some years a little more came from us than went to them

and other years it is the other way around. I haven't got that in exact figures.

Q. You say it is involuntary; it goes one way and flows back another. What do you do with the excess. Do you account for the excess and balance that at the end of the year?

A. Yes, we pay them and they pay us for what flows over their meters and we pay them for what flows over to us.

Q. What is the price?

A. We try to find an average increment cost. I think the price now is 2.7/10 mills.

Q. No matter which way the excess is, it is the same price?

A. The same price.

Q. I mean if there was a little excess of incidental power that goes to Public Service that is a fixed price you have agreed on, and if the other way it is the same price?

A. The same price, yes. That is adjusted each month.

Q. Now, how long has Staten Island Edison and Public Service interconnection been operating?

A. It was installed late in 1925 and has been operated ever since, not continuously. It has been in and out. Sometimes it was out. In the early days I can't tell why it was out.

Q. It was established in 1925?

A. In 1925, yes.

Q. For what purpose?

A. For the purpose of supplying emergency energy.

Q. Now, Mr. Lytle, you heard Mr. Grimsley's testimony, did you not?

A. Yes, sir.

Q. You have been here throughout these proceedings?

A. Yes, sir.

Q. Mr. Grimsley gave some testimony to the effect that Staten Island Edison Corporation was dependent ap-

on Public Service Electric and Gas Company for this connection. Is that true or not?

A. It is not true that we are dependent upon them.

Q. Do you rely upon them?

A. We do not.

Q. In any way?

A. No, sir.

Q. To carry any part of your load?

A. In emergencies only, in case of the breaking down of facilities.

Q. Let's go back to the capacity of the Staten Island. What is the capacity of the Staten Island?

A. Do you mean the generating plant?

Q. Yes.

A. And power house?

Q. Yes.

A. 47,500. That is the name plate data. Actually it is good for a little more than that.

Q. That is what we want the rated capacity?

A. Yes. I will say that that is the capacity this Commission asked for in their report. I think they asked for that.

Q. What report are you speaking of?

A. In some report, although I don't know just what you call them. I understand they asked for the name plate capacity.

Q. When you talk about capacity, Mr. Lytle, and you say 47,500 k. w. h. capacity, are you talking about what engineers call the rated capacity?

A. The rated capacity of generating equipment.

Q. What do you engineers mean by rated capacity?

A. That a turbine will carry at its most efficient water rate of steam rate. With the turbine I would say that is the load the machine will carry at its most efficient water rate or steam rate.

A turbine on light load is not as efficient as it is at

full load. A turbine overloaded is not as efficient as it is at what you would call the rated load or full load. However, it can carry more load than the rated load.

Q. What would you say is the actual capacity in the Livingston station?

A. About 53,000, or something on that order, or $54,000.

Q. About 54,000?

A. Yes. I think it would carry that. I know that it would carry that. I know we can. I know it would carry more than that.

Q. I suppose there is some limit. If you have generating equipment which has a generating capacity of, let us say, 50,000, is it generally true—I am asking you now as an engineer—that those engines can carry more?

A. Will you please repeat the question?

EXAMINER SPENCER: Will the Reporter read the question, please?

(The question was then read by the Reporter.)

BY MR. PAXSON:

Q. What is your answer?

A. Yes.

Q. Of course, there is a limit to what they can carry?

A. Yes.

Q. Is this a correct statement, that when you talk about rated capacity that means that under any and all circumstances if you do not carry any more than the rated capacity you are operating very safely? Does safety have anything to do with it?

A. Oh yes; it has plenty to do with it from an operating standpoint. My job is primarily to see that the service is reliable. It is up to me to see that the machines are carrying such loads as they can carry with, I would say, plenty of spare capacity in them, running and spinning.

Q. When you speak about your capacity of 47,500, does that include any of what you call cold reserve, or is that spinning capacity, or what?

A. It is rated capacity of all the machines in the plant. It does include the cold reserve, however.

Q. Of what does that cold reserve consist?

A. Two turbines, one of 10,000 rated capacity and one of 6,000 rated capacity.

Q. What are the others that are spinning all of the time? 16,000 did you say? And then what are the others? Are they 15,000?

A. We have two rated at 15,000 each that do most of the work or that are running most of the time. However, these other two that I mentioned, the 10,000 and the 6,000, are available to operate on about a half hour's notice. That is, we can start them on a half hour or three-quarters of an hour's notice. They are kept in good operating condition; that is, normally.

Q. Normally, as I understand your testimony, you have these two generators having a rated capacity each of 15,000 k. w. operating to carry your normal load, with additional turbines having additional capacity of 16,000 k. w. that are waiting?

A. Yes, sir.

Q. And you say you can start them in a half hour or three quarters of an hour?

A. Yes, sir.

Q. Is that right?

A. Yes.

Q. These two generators that are spinning all of the time, of course, you have to repair and paint? I don't suppose you keep them running all of the time, do you?

A. No, sir. Our practice is to take them down about once a year for overhauling, general maintenance, and so on. Of course, that is one at a time.

Q. You would not take both of them down at one time?

A. No; we do not work it that way. We don't need to do it, and we haven't got the men to do it.

Q. Suppose you want to take one down for what you call normal repairs, which you say you do every year; then, what do you do?

A. We start one of these others, the 10,000 or the 6,000, depending upon the load.

Q. You then utilize the reserve capacity before you interfere with the operation of the two 15,000 generators?

A. Yes.

Q. Or either one of them?

A. Yes, sir.

Q. Now, Mr. Lytle, what was your peak in 1937?

A. In 1937, you say?

Q. Yes.

A. In 1937 the peak on Livingston station, that is, the peak on the system of 31,700 kilowatt hours, was for the hour from 6:00 p. m. to 7:00 p. m. As I remember it, it came on December 27th. I think it was on that date.

Q. Then, on December 27th between the hours of 6:00 p. m. and 7:00 p. m. you had a peak which was the highest peak for the year, as I understand it.

A. It was the highest peak for the year 1937.

Q. 31,700?

A. Yes.

Q. That is, k. w.?

A. 31,700 kilowatt hours for one hour. It meant an average of 31,700 k. w. for that hour.

Q. An average of 31,700?

A. That is right.

Q. Now, at your peak in 1937 did you utilize any energy coming from Public Service Electric and Gas Company to carry that peak?

A. No, sir; unless there was a little bit of slopover.

I think there was. Later on, quite some time afterwards, I checked, and as I remember it, there was a little bit of slopover going to them, but not very much. I don't know how much there was. Over that hour there was a little that came to us and a very little bit went over to them; but they were very small amounts. It would be less than a thousand.

However, I cannot give you an exact figure on that. I can give you this on that hour. I do remember this, because I have to pay rather strict attention to our peaks for various purposes. Very often I am in the power house, and if I knew a peak was going to come, that is, the highest peak, I would be there right at that time. I try to anticipate it. And some times I go two or three days in succession and try to get it. On this day I asked the system operator, who has charge of operating the system and who looks at this meter which shows the interconnection, and I wanted to know for my own information what that peak was, and he said he was about balanced. That meant he was holding it around zero. So I presumed from that that if there was any slopover it was simply what he could not catch at all.

Q. I thought you said a little while ago that during this peak hour in 1937 the balance was a little bit the other way?

A. I did say that, because about that time I checked the meters that we have at the Atlantic substation and they indicated that there was a little excess energy that flowed to Jersey, that is, several hundred k. w. h. But, as I say, I do not have the exact figures. At that time I did not consider it particularly important a little flow one way or the other, and since it was away from us I was not worried about it.

Q. Mr. Lytle, is it or is it not true that you rely upon the Public Service Electric and Gas Company and this interconnection to carry your peaks?

A. We do not rely upon Public Service Electric and Gas Company to carry our peaks.

Q. You do not lean on them in any way?

A. No; we do not lean on them in any way. And it is a very distinct agreement with them that we shall not. Otherwise, if we did, they would charge us for it at a much higher rate than they do for any incidental that comes or economy flow. We would pay a higher rate for it.

Q. They would charge what is called a firm basis?

A. They would charge us on this emergency basis. They would simply declare that it was an emergency. We have been very careful in our operating to keep faith with them. We cannot do business with them day after day through men under us unless we are very careful to do what we say we will do, within the limits of a man's ability to do it.

Q. The other day Mr. Grimsley made the statement which appears on page 307 of the record, as follows:

"When Staten Island peak is right up to the rating of these two generators then she is depending upon that swing there for that excess that may come on her own system, depending upon Mechanic Street for that."

I will ask you if that statement is correct?

A. We are not depending upon Public Service Electric and Gas Company through that interconnection for steady loads or swings, or either one of them, and we have not been. I am referring to this peak.

Q. Have you ever supplied any electric energy to Public Service Electric and Gas Company for the use of Jersey Central Power and Light Company?

A. No; not that I know of never. They would be violating their part of the agreement if they took power from us for somebody else, that is, for another operating property.

Q. Then, as I understand your entire testimony, Mr. Lytle, that interconnection is for emergency service only?

A. That interconnection is put there for emergencies.

Q. But you have occasionally called upon Public Service Electric and Gas Company for what you call economy flow?

A. We have.

Q. And there is nothing firm?

A. And as to economy flow, that is not of very much commercial value. They can stop it at any time they want to. We cannot depend upon it. We cannot sell a customer on that idea; we cannot go to the customer and agree to furnish him so many kilowatts a month or so much demand and have him say, "Where will you get it?", and then say "We get it from Public Service Electric and Gas Company, and they can cut it off at any time they want to".

Q. Then Mr. Lytle, is it a true statement that you always have capacity to take care of your own load on your own line?

A. It is a true statement that we always have capacity to take care of our own load on our own line, that is, on our own system; on all of our lines.

Q. Going back to this question of routine inspection and maintenance; when is that usually done?

A. It is usually done in the summer time when the peak loads are lighter.

MR. PAXSON: You may cross examine.

EXAMINER SPENCER: Gentlemen, we will recess for five minutes.

(Thereupon, a short recess was taken, after which the following occurred.)

EXAMINER SPENCER: Gentlemen, the hearing will be resumed.

You may proceed with the cross-examination of the witness, Mr. McAllister.

Cross Examination

BY MR. McALLISTER:

Q. Mr. Lytle, during what periods of time in 1937 did you operate the generator which is rated 6,000 k. w.?

A. During what periods?

Q. Yes.

A. I do not have the exact dates. I will have to get them for you. It was probably in the summer months. I don't remember that.

Q. Did you operate it at all during 1938 up to the present time?

A. Up to the present time or up to this date?

Q. Up to this present time.

MR. PAXSON: If the Commission please, I object to any questions with respect to any periods subsequent to March 14, 1938.

EXAMINER SPENCER: The objection is overruled. You may have an exception.

THE WITNESS: Up to the present time?

BY MR. McALLISTER:

Q. Yes; up to the date on which this hearing began, because you have been away and I do not expect you to be in daily touch regarding that matter. It is just a relative thing.

A. I do not believe we have. I am not certain.

Q. You do not believe you have?

A. I do not believe we have. We may have once on one day.

Q. Can you obtain that information and supply it for the record, showing the times during 1937 and up to the date on which this hearing began?

A. I can obtain it but I cannot give it to you from what data I have with me. I will have to go back to our records for that information.

Q. Showing the dates and the number of hours and the generation of that unit?

A. That information is available at our power house and I can get it. I do not have it with me.

Q. Will you undertake to obtain it and furnish it for the record in this case?

MR. PAXSON: If your Honor please, I still have my same objection. It is no part of this case. Any information subsequent to March 14, 1938 is not a part of this case, and we will not offer it. We will furnish it to the Commission if he requests, and he can do with it what he pleases.

EXAMINER SPENCER: Let the record show the witness will procure this information and furnish it for the record, and that any statements subsequent to March 14, 1938 are objected to by counsel for Respondent.

MR. PAXSON: And any information which is furnished for a period subsequent to March 14, 1938 is no part of Respondent's case.

EXAMINER SPENCER: That is right.

MR. PAXSON: I object to it.

THE WITNESS: It is available. I do not have that information with me. It is available at our power house at Livingston, at Staten Island, and I can get it.

EXAMINER SPENCER: And then what is your answer in response to the question asked by Mr. McAllister?

THE WITNESS: That is a request? Is that right?

BY MR. McALLISTER:

Q. Will you undertake to obtain it and furnish it for the record in this case?

THE WITNESS: No.

EXAMINER SPENCER: You will not?

THE WITNESS: Under advice of counsel I will not attempt to get him information having to do with the operations after that date, March 14, 1938.

MR. PAXSON: If the Commission please, we have no reluctance at all to furnish this information, and if the Commission wants it we will be glad to give it to them for any use that the Commission wishes to make of it, or to Mr. McAllister. But the question was: Will he furnish it for the record.

We will not furnish it as part of our case so that we can be bound in any way thereby on our theory of this case. But we do not mean we are in any way recalcitrant. He may have it. The information is available.

MR. McALLISTER: As a part of the cross-examination, Mr. Examiner, I am entitled to ask that the witness supply that part of the information, which becomes and is a part of his response that he does not have the information, that he does not have it with him. But he said before that it was available and could be supplied and that he would undertake to supply it.

Now, if Mr. Paxson has any valid objection to it he can record that objection in just the same manner that he can record an objection to any other question that I may put on cross-examination.

It is information that I have requested. I have requested that it be supplied for the record by the Respondent for the information of the Commission, and I have not asked him to supply it to the Commission for their information in an informal way, but

I have asked that it be supplied by the Respondent as a part of the pertinent facts in this particular record. I want that understood definitely.

EXAMINER SPENCER: Definitely understood by whom?

MR. McALLISTER: On the record, that is, definitely understood on the record as to what I am asking and my reason for it.

EXAMINER SPENCER: Have you finished?

MR. McALLISTER: Yes, Mr. Examiner, I have finished.

MR. PAXSON: May I make a suggestion?

EXAMINER SPENCER: Yes, Mr. Paxson.

MR. PAXSON: Perhaps we are barking up a tree here finintentionalfy and perhaps I am over-technical. I do not wish to be. I have an objection to make and this suggestion: This information will be furnished as requested, over my objection which has been noted on the record, so long as it appears clearly that it was furnished at the request of Mr. McAllister, Counsel for the Commission, on cross-examination.

Perhaps that will settle it.

MR. McALLISTER: Thank you.

EXAMINER SPENCER: We haven't got the record in any shape yet at all. We have to have the record show something definite.

Off the record, please.

(Thereupon an informal discussion occurred which the Reporter was directed not to record, after which the following occurred.)

EXAMINER SPENCER: Let the record show that by agreement of counsel the information requested, and also the information as to the emergency energy purchased by the Staten Island Edison Corporation and the economy energy purchased by the same corporation subsequent to March 14, 1938, is to be furnished by the witness in the form of an exhibit for the Commission.

MR. McALLISTER: Mr. Examiner, I do not think there is any basis for that. It is submitted as a part of the cross-examination. I will grant the designation you give it does not amount to a row of pins; but it seems to me it is not an exhibit that is submitted on behalf of the Commission. It is the completion of data which are a part of the information supplied by Respondent. And I am merely asking that it be made complete and be brought down to-date. It is supplementary to the information which they did supply.

EXAMINER SPENCER: Let the record show that it will be submitted by Witness Lytle in the form of an unverified statement.

MR. McALLISTER: I will object to that, Mr. Examiner. If it is submitted as a statement I will assume that it carries with it the oath that he has sworn to here on the witness stand.

EXAMINER SPENCER: Mr. McAllister, it has to be somebody's exhibit.

MR. McALLISTER: But I thought you said "unverified".

EXAMINER SPENCER: If it is going to be an exhibit it will have to be somebody's exhibit.

MR. McALLISTER: It can be identified by any

number you care to give it, Mr. Examiner; but it reasonably should be a supplement to the exhibit of which it is a part. But when you say "unverified"

EXAMINER SPENCER: By that I mean it would not be sworn to. No exhibit is sworn to.

MR. McALLISTER: No, Mr. Examiner, but it carries the identification and the verities that attach to the oath of the witness who puts it in.

MR. PAXSON: We do not object to the verification. If it is furnished, it will be true. But we are not offering it as an exhibit. We are supplying it over my objection at the request of Mr. McAllister on cross-examination.

EXAMINER SPENCER: Instead of an unverified statement it will be a verified statement.

Such statement to be furnished within how long? How long will it take you to furnish it, Mr. Lytle?

THE WITNESS: I will have to make a trip up there. I can go up there tomorrow and come back day after tomorrow.

EXAMINER SPENCER: We do not mean for you to come back with it. But it will be received as your evidence as a verified statement. Can you do it within a week?

THE WITNESS: Yes, sir. I think it could be furnished within a week. To the best of my knowledge, it could be furnished.

EXAMINER SPENCER: On or before October 10, 1938?

THE WITNESS: Yes, sir.

EXAMINER SPENCER: You may proceed.

BY MR. McALLISTER:

Q. Mr. Lytle, with respect to the 10,000 k. w. generator which you stated was maintained as cold reserve, at what times and during what number of hours was that generator in service connected with loads during the year 1937?

A. I have not the exact record in mind, you understand, but it was over a period of six weeks, I believe, every day. It wasn't the full day, but part of every day. That is the best of my recollection. I would have to check my records for that information. It was an appreciable length of time—not just a half hour to bring it up and start it up. We actually depended upon it. It was in good condition.

Q. That was in 1937 to which you refer?

A. During 1937. But I say I would have to give you that information with the qualification that I do not remember distinctly. I cannot keep in mind all of those hours and days. But it was right in that time, I am quite sure.

Q. To secure that information what records would you consult?

A. The power house logs.

Q. And you rely upon those log sheets?

A. Yes.

Q. As the records of what transpires in the generating plant?

A. I rely upon them; yes, sir.

Q. And, likewise, the records and log sheets that you maintain at your substations provide you with reliable information? Is that true?

A. I rely upon them.

Q. And during 1938, that is, from January 1, 1938 to the date on which this hearing began, did you make any use of this 10,000 k. w. generator; that is, was it carried on the line and connected with loads?

MR. PAXSON: That is objected to so far as any period subsequent to March 14, 1938 is involved in the question.

EXAMINER SPENCER: The objection is overruled. An exception is noted.

You may proceed.

THE WITNESS: Yes; it was used.

BY MR. McALLISTER:

Q. Do you recall during what periods?

A. I would say July and August. I will say this, that it was used for an appreciable time.

Q. Just to make the record complete in that respect also, Mr. Lytle, will you supply the same information with respect to the 10,000 k. w. generator that you are to supply with respect to the 6,000 k. w. generator for the same period?

MR. PAXSON: If the Commission please, of course, I have the same objection. We are willing to supply that if it is understood it is being supplied at the request of Mr. McAllister on cross-examination and not any part of the exhibits submitted by us.

EXAMINER SPENCER: Let the record so show.

Can you furnish that by October 10th also, Mr. Lytle?

THE WITNESS: Yes, sir.

BY MR. McALLISTER:

Q. And that will show the periods and times when it was connected with loads and the quantity of energy generated by it?

A. Yes, sir.

Q. What is the distance from your Atlantic substa-

tion to the Livingston Plant?

A. Approximately 15 miles.

Q. Is that line distance?

A. Yes. It is 15 to 16 miles. There are two circuits leading around there. That is over one of the circuits.

Q. Will you please describe the circuits which do connect the Richmond plant with the Atlantic substation?

A. The Livingston plant with the Atlantic substation?

Q. Yes.

A. There are two 33 k. v. lines that run from Livingston power station to Eltingville. There are two other 33,000 volt lines that run from Livingston power station to Eltingville over a different route. They come together at Eltingville.

Q. What is the distance over each one of those?

A. May I refer to the notes and may I get them?

Q. Certainly.

A. Well, does that document there give it?

Q. I don't know whether it does or not.

A. Well, this (indicating) does give the distance. The route I first mentioned is 57,795 feet. As to the second route, I will have to add these together. The second route that I mentioned would give a distance of 59,177 feet, if my addition here is correct.

Q. Now, will you follow the course of those lines on to Atlantic substation?

A. From Eltingville there are two circuits on the same pole line, which is a distance of 24,106 feet.

Q. What substations do you maintain on your system in addition to the Atlantic substation?

A. We maintain the ones at Livingston, Arlington, St. George, Clifton, South Beach, Oldtown, Grant City and Eltingville in addition to the Atlantic substation. I think those are all of them.

Q. Are those substations all connected by the trans-

mission line or lines which you described as indicating the distance from Atlantic substation to the generating plant at Richmond or the Richmond generating plant?

MR. PAXSON: That is objected to. I object to the use of "transmission" line unless he defines what he means. If he wants to say "lines" without designation as to transmission or distribution, I have no objection.

EXAMINER SPENCER: Are they transmission lines?

THE WITNESS: I do not consider them transmission lines. I consider them distribution lines.

EXAMINER SPENCER: I did not catch the significance of that question. Will the Reporter read Mr. McAllister's question?

(The following was then read by the Reporter:)

"Q. Are those substations all connected by the transmission line or lines which you described as indicating the distance from Atlantic substation to the generating plant at Richmond or the Richmond generating plant?"

EXAMINER SPENCER: The objection is overruled.

THE WITNESS: I do not consider them transmission lines. Well, I will have to get that question again.

EXAMINER SPENCER: Will the Reporter read the question, please?

(The question was again read by the Reporter.)

THE WITNESS: All of those substations are connected by distribution lines.

BY MR. McALLISTER:

Q. There are no transmission lines between those substations?

A. No transmission lines. I do not consider them transmission lines.

Q. What is the voltage of the lines which connect Livingston generating station with the Atlantic substation?

A. 33,000 and 6,900. We can also connect through there on 2,300.

Q. Is there no 33 k. v. transmission line connecting the substation with the Richmond generating plant?

A. There is no 33,000 volt transmission line. There is a 33,000 volt distribution line.

Q. There is a 33,000 line connecting the Richmond plant with the Atlantic substation?

A. There is a 33,000 volt distribution line connecting Atlantic substation with Livingston power station.

Q. How do you get the energy down to Atlantic sub station or in the reverse direction without a transmission line?

A. We get it over a distribution line.

Q. It is transmitted, isn't it?

A. It depends upon the definition of the terms, I think. Power will flow over any line. You can call it a transmission line or distribution line or you can call it a service loop.

Q. Why do you distinguish it? What are the pertinent characteristics of this line which distinguish it?

A. I distinguish it in this way: we serve customers off of and sell power off of the 33,000, 6,900 and 2,300. The routes of those lines, I will say, that is, the routes of the 33,000-volt lines are determined by power customers. The power customers' locations determine the route of those lines.

Q. Do you sell off of those lines direct?

A. That is correct. We sell power off of those 33,

000 volt lines direct. We sell them at 33,000, that is, we sell customers at 33,000 volts.

Q. What customers do you have and what are their locations?

A. There is one customer.

Q. What is it?

A. Staten Island Rapid Transit Railway Company. The locations are Atlantic, Eltingville, Oldtown, South Beach, St. George and Arlington. I think those are all at which we sell them 33,000 volt service.

Q. What customers do you have on the 6,900 volt line?

A. We have other customers, we have other power customers. I cannot give you an entire list but I can mention some of them if you wish me to do so. I can mention some of the customers we serve off of the 6,900 volt distribution line. They are United States Gypsum Company, Bethlehem Shipbuilding Company, Standard Varnish Company, Brewer Drydock Company and Nassau Smelting Company. There are a number of them. We have a number of others but I cannot give you all of the customers. We have 47,000 customers.

Q. Where is that 6,900 volt line or the line to which you referred, Mr. Lytle?

A. We have 6,900 volt lines running out of Livingston, Arlington and Atlantic and Eltingville. I think those are all. Yes; those are all substations.

Q. Are any of those 6,900 volt lines a part of the circuits which you described as connecting Atlantic substations with the Livingston generating plant?

A. Those circuits can be made continuous. Normally we do not operate them as a solid connection between Atlantic substation and Livingston power station. We can by throwing the switches. It is only a matter of throwing switches.

Q. It is a by pass, if you want to make it such?

A. It can be. It can be connected solidly through.

Q. What I am referring to is the description of the lines or circuits from Livingston generating plant to Eltingville. You described two circuits, didn't you?

A. I described two 33,000 volt circuits.

Q. Those are two 33,000 volt circuits?

A. I described two 33,000 volt lines. It is a double circuit line. There are really four circuits from Livingston to Eltingville.

Q. The two follow one path?

A. That is right.

Q. Or the two follow one course?

A. Yes.

Q. And the other two go around in the other direction?

A. Yes, sir.

Q. And you have a 33,000 volt line from Eltingville, Mr. Lytle, to Atlantic Substation which is a continuation in reality of the four that we have been describing heretofore?

A. Yes; two circuits on that one line.

Q. So you have these two complete double circuit lines between the Atlantic Substation and the generating plant at Livingston?

A. There is one small exception there—just being accurate about it—between Eltingville and the next adjacent substation on one of those routes, which is Grant City. There are two lines on the poles, but they are tied through a circuit breaker on each end. Do you understand what I mean?

Q. Yes.

A. They are really operated as one circuit.

Q. But the capacity is not diminished by it?

A. No. The same is true for that section from Grant City Substation to Oakdale substation.

Q. That tie-in there does not diminish the capacity

of the line? I mean materially. It may incidentally; But it does not substantially alter the capacity of the line?

A. Yes; it does limit it. It does limit it, because of the capacity of the circuit breakers on each end of those sections.

Q. What is the capacity of those circuit breakers?

A. I will have to get my records on that. But I think those circuit breakers are 200 amperes 37,000 volt. I believe that is their rating.

Q. Then the 6900 volt lines to which you referred are not ordinarily a part of the circuits that join Atlantic Substation with the Livingston generating plant?

A. They are not ordinarily connected solidly through to Livingston.

Q. The other lines which you described are the lines which would ordinarily carry any energy flowing between those two points?

A. Yes, sir.

Q. In furnishing the distances between various points at the beginning of your testimony I believe you referred to this map (indicating), did you not?

A. I think you said you had it, or somebody there at the table said you had it.

MR. PAXSON: I think that map should be designated in the record.

MR. McALLISTER: It will be designated very clearly before I get through.

MR. PAXSON: Thank you.

BY MR. McALLISTER:

Q. I think you saw the map and you said "if it is on there I can give it from that."

A. It did look like a picture of our system, as a matter of fact.

Q. Will you identify it and state the source from which the information was obtained?

A. It was obtained from the transmission distribution department, apparently from the designation, or from the distribution department.

Q. I mean what the map is, if it is labeled, and then state for the record the source of the information.

A. It is a map that shows the 33,000 volt lines, single line drawing. It shows the 33,000 volt lines. I don't see here where it mentions that it is double-circuit or single-circuit, or anything of the kind. It shows the routes of the 33,000 volt lines.

Q. And it is labeled, is it?

A. If it is labeled 33,000 k. v. transmission system, it is labeled that. But I do not agree with that, so, far as that goes.

Q. And it was submitted to the Federal Power Commission as a part of the Staten Island Edisca Corporation's report to the Commission, as indicated by the cover page, "Power System Statement for the year ending December 31, 1937, made by Staten Island Edison Corporation covering Staten Island Edison Corporation, located in State of New York, to the Federal Power Commission", with the stamp of the Federal Power Commission. And it shows it was received July 21, 1938? That is correct, is it not?

A. That seems to be; yes. I did not make it up and I did not sign it. It seems to be all right. It isn't something that I signed.

Q. It is a statement and report signed by—Perhaps you can read this name (indicating).

A. William A. Kienzle, Comptroller.

Q. Comptroller of the Staten Island Edison Corporation?

A. Yes.

Q. What is this name?

A. Mange.

Q. That is his signature?

A. W. E. Mange. I am not an expert on that sort of thing. But I think it is.

Q. You are familiar with his signature, are you not?

A. Yes; I am familiar with his signature. It looks like it, surely. But I am not a handwriting expert.

Q. You are familiar with his signature?

A. Yes.

Q. And to all intents and purposes it appears to be his signature?

A. I don't want to take an oath that that is his signature. I am not that much of a handwriting expert. But I think it is.

Q. You have no reason to believe that it is not?

A. I certainly have not. If the Commission submits it I certainly believe so.

Q. I just wanted to clear it up in view of the fact you expressed some doubt.

A. I don't like to express a very positive opinion on a subject on which I am not capable of having a good opinion.

Q. And that map is supplied as a part of schedule 18 of the report?

A. Yes. I am taking your word for a lot of that.

Q. Will you please examine the report.

A. Schedule 18, System maps and diagrams. That seems to be all right. I wouldn't question it anyway, so far as that goes.

Q. So far as the 33,000 volt lines are concerned, you say you have one customer that takes off of those lines at that voltage?

A. Yes, sir.

Q. And that is through your substation, did I understand you to say, or is it direct?

A. Direct.

Q. Direct?

A. At 33,000 volts. It is sold and metered at 33,000 volts at various substations, and not only at one place. It is at various substations.

Q. That is what I am trying to get straight. Are all of the tie-ins through a substation?

A. At a substation?

Q. Yes; at a substation.

A. At a substation, not through a substation.

Q. Through a bus in the substation the connection is made?

A. They are off the substation bus.

Q. And if it were not for this customer then would you classify these lines as transmission lines?

A. If it were not for this customer we would probably not have those lines. Those lines were probably built primarily to supply that customer.

Q. Just forgetting the circumstances of the building and one thing or another, Mr. Lytle, if you were to eliminate those customers and the lines were to continue to operate with the load that they now carry, would that make them transmission lines?

A. No. I still would not consider them transmission lines, because we have considered having other customers in the past. We have negotiated with them on the basis of selling them off of those lines.

Q. Then let's eliminate those and still keep the load at the same level; would you then consider them transmission lines?

A. No.

Q. Why not?

A. Because they are entirely suitable and the routes are of such a nature that they would be and could be used for distribution.

Q. Would they be used for distribution under the circumstances that I relate?

A. Will you please repeat the circumstances? We are talking about something that may have happened or that might happen in the future.

Q. No; I am just asking you if you eliminate in the first instance the one customer that you now have, would you consider those 33 k. v. lines transmission lines.

A. Yes; I would. If they dropped off tomorrow I would still consider them distribution lines, because that is what they are good for.

Q. They would not be transmission lines?

A. I would not consider them a transmission line; no, sir.

Q. With the customer off? Then, what makes them a distribution line?

A. Because they are the type of line that can be used and are used. We are using them and other people are using them for distribution purposes.

Q. Then, what would you have to add to them to make them a transmission line?

A. I don't see how I can answer that—what I would add to them. I can't add anything to them there. You can build a new line that would be a transmission line.

Q. How would you alter the operation of them if you were attempting to convert them from a distribution line according to your ideas to a transmission line?

A. How would I alter them?

Q. Yes; alter the physical aspect of the lines and their operation.

A. I don't think you could alter them in the City of New York. I don't think you could do it.

Q. Are these lines all located on poles?

A. No, sir. There are some underground, underground cable. I can tell you what is underground.

Q. All right, Mr. Lythe. Will you do that, please?

A. This section shown in broken lines is underground cable (indicating).

Q. Just state the limits of it to show what it is.

A. This point here. I can give you the street there. It is Morning Star Road; from there to Livingston, and then from Livingston to St. George, and from St. George to Clifton. That is underground.

Q. It is only that part from Livingston generating station to St. George and from St. George to Eltingville?

A. To Clifton.

Q. Those two sections are the only two sections which enter into the make-up of the line between Livingston generating plant and Atlantic Substation?

A. They are the only two lines that make up what?

Q. They are the only two underground cables that go to make up a part of those circuits we mentioned?

A. You are not discussing the section running to Arlington? Is that what you mean?

Q. Yes.

A. The part from Livingston to St. George and from St. George to Clifton are underground.

Q. And that is shown in a broken line on the map which is a part of schedule 18, which is included in the Power System Statement to which reference was made a short time ago?

A. Yes.

EXAMINER SPENCER: We will recess at this time until 1:30.

(Whereupon, at 12:25 o'clock p. m., a recess was taken until 1:30 o'clock p. m.)

AFTER RECESS

(The hearing was resumed at 1:30 o'clock p. m., pursuant to recess.)

EXAMINER SPENCER: The hearing is resumed. Are you prepared to proceed, Mr. McAllister?

MR. McALLISTER: Just one moment, Mr. Examiner. The time was so short at recess I had no time to go over my notes.

EXAMINER SPENCER: Very well.

Whereupon

J. H. LYTLE,

the witness on the stand at the time of recess, resumed the stand and testified further as follows:

Cross Examination

BY MR. McALLISTER:

Q. Mr. Lytle, in response to a question by Mr. Paxson you stated on December 27, 1937 you reached your annual peak load?

A. Yes.

Q. You also stated,—

A. (Interposing) Peak on the system.

Q. Is there any difference?

A. No, except for a little slop-over there I found later. I explained that to Mr. Paxson.

Q. Will you explain that now? I don't recall that. If there was a difference in the peak on the generating system,—

A. (Interposing) The generating station was 31,600.

Q. 31,700.

A. 31,700, that is right. Later on I looked at the charts we had of Atlantic Substation showing the flow into the interconnection and I found that 200 had gone toward Public Service. I can't tell you how many. I am not sure about our records of that, but for that hour, 6 and 7, there was a balance of a few hundred going into the Public Service System. So, our own System would be a little less, but the Livingston Station was the figure I gave to Mr. Paxson.

Q. That was the energy developed during that hour at Livingston plant?

A. At the Livingston plant, yes.

Q. I believe you said also that was average for the hour?

A. It was in there, according to the kilowatt hours, for one hour.

Q. What is the maximum and minimum during that hour?

A. The maximum, as I remember, was 32,500. It flashed up to 32,500. It surged up that way. That was the highest reading. The reason I remember that our reports show it. I don't remember the minimum.

Q. And that was between 6 and 7 p. m. on that date?

A. Between 6 p. m. and 7 p. m. on December 27th.

Q. 1937?

A. 1937; yes, sir.

Q. And I believe also in response to a question by Mr. Paxson you stated the load at that time was being carried by two 15,000 kilowatt generators?

A. Yes.

Q. Did you have any other capacity on the line at that time?

A. No, sir; no other generating capacity; no, sir.

Q. No other generating capacity on the line?

A. No, sir.

Q. Supposing one of those generators had failed during that period, from what source would you have supplied the period of the peak load that was theretofore carried by the generator which is assumed to have failed?

A. We would have carried what we had to carry, what we needed from Public Service through that interconnection.

Q. Just what would occur upon such a failure? What would be the series of events that would occur if one of those generators failed during that time?

A. The generators have a differential relay operation so that an internal fault or stepped-up transformer would cause the differential relays to operate automatically taking the machine off the bus.

Q. Taking the machine off the bus?

A. Yes, sir.

Q. What would be the next thing that would occur upon your system?

A. Well—

Q. (Interposing) Automatically what would occur in the natural course of events under those circumstances?

A. Automatically emergency power would begin to flow in from Public Service. We would immediately get started on the other two machines and bring them up, but the first thing that would happen the power would automatically flow into Staten Island through that interconnection. That is what it is for.

Q. That is what it is for and you rely on it for that purpose?

A. We rely on it for emergencies.

Q. For that purpose I just mentioned?

Would you rely on it for conditions such as I have described?

A. We would rely on it for emergencies.

Q. Don't argue, can you answer the question?

A. Will you repeat the question?

Q. I say during the time you are carrying your peak load on the date which you specified and the period which you named, you said you have two 15,000 generators on the line carrying that load of 37,500 kilowatts, and I said if one of those generators would fail what would occur. Your answer was you would immediately begin taking energy to supply the sufficiency through the connection with Public Service, and I said it is a fact that under the circumstances you rely upon this connection for—

A. (Interposing) Yes, because that is an emergency.

Q. You rely upon this connection with Public Service?

A. Yes, that is an emergency.

Q. There is every reliance there. You would not be attempting to operate, would you, a load of 31,700 with two 15,000 generators and no other machine on the line if you didn't have this connection?

A. We would not, that is right.

Q. That would not be a good operation?

A. No, sir.

Q. Would it?

A. Not with 31,000 on there and those two machines would not be good operation.

Q. Now suppose you have a load of 27 or 28 thousand kilowatts, would it be good operation with two 15,000 units operating and no other units on the line, would it be good operation to attempt to carry that load with two units without such an interconnection?

A. No.

Q. Without such a connection and two units on the line would you handle anything above 20,000 without such a connection?

A. No, not above 20,000.

Q. You would not, in good operating practice, attempt to carry a load which would be in excess of the capacity of either of those generators without a connection, would you?

A. Not in excess of a maximum capacity.

Q. Of one of those generators?

A. Of one of those generators. I don't mean the rated capacity. I mean 15,000—

Q. (Interposing) To get right down to a basic figure, what would that be?

A. About 20,000.

Q. You can get 20,000 out of one of those generators that is rated as 15,000?

A. We have done so.

Q. Over what period of time?

A. On checking just to determine what we can do I would say roughly 10 or 15 minutes. However, we took readings of our generator and transformer temperatures and those readings indicated we could carry that load half an hour to an hour. In that situation it would give us time to get the other started. Is that clear?

Q. That is clear as far as I am concerned.

Would you attempt such operation except in an extreme emergency?

A. Let me get this straight, your question.

Q. I mean when you are relying upon that unit to generate 20,000 kilowatts over a period of an hour, your peak load depends upon that one unit?

A. No, we would not go quite to 20,000.

Q. You would not want to ask your customers to rely upon anything as uncertain as that?

A. No.

Q. How about the generator, would you want to ask your company to hazard the damage that might occur to that generator under those conditions?

A. I told you we feel certain, based on actual tests, during which readings were taken, that it would carry the 20,000 long enough to get additional capacity on the bus.

Q. Would that be safe operation? In other words would you rely upon that one unit, eliminate this connection, depending upon your ability to get one of the other generating units rolling as a general layout of operation plans, would you do that?

A. Up to 20,000 can do it, because we can get other capacity on the line in half an hour to an hour and it will carry 20,000 that length of time.

Q. You are willing as an operating man, considering the service to the public and the good of your company to operate under those conditions whereby you might be called

upon to load that generator up to 20,000 kilowatts for a period of half an hour to an hour?

A. I would not operate that close.

Q. You would not operate that close?

A. No, sir.

Q. What I am trying to get at, how close would you operate?

A. About 17,000.

Q. About 17,000 would be the only safe margin you would have?

A. No, I didn't say only safe margin.

Q. As a practical operating plan?

A. There is such a thing as being safe and plenty safe.

Q. What is this?

A. I would not be afraid to bring it up to 20,000. I am directing men and I am going to allow for human errors and mistakes. You can say 20,000 for a turbine. You can say a man can do something in 10 minutes but maybe the man will get excited. I am just playing a little safer.

Q. Let's say 17,000 would be the safe plan.

A. That is an arbitrary figure set by myself.

Q. Is that your judgment of what you could rely on?

A. I would say that is what we have been doing.

Q. That is what you have been doing?

A. About that.

Q. What was the power factor in 1937 at the peak load?

A. About 83 or 84 per cent, something on that order, but I can't tell you that exactly.

Q. With that power factor the rated capacity then would be just about all you could get out of this generator?

A. At that 15,000?

Q. Yes.

A. No.

Q. How much more?

A. I told you 20,000 for a short period.

Q. With that power factor?

A. With that power factor.

Q. What was the power factor?

A. About 83 or 84 per cent.

Q. The economy energy and incidental flow that you talk about is all the same energy so far as its ability to serve a customer is concerned, isn't it?

A. No, there is a distinction there.

Q. Let us get the question straight. It comes on your line. You dispose of it to your customers in exactly the same manner you would emergency power or any other power on your line.

A. Power on the line goes to the customers of course.

Q. That is all I asked.

A. But there is a distinction between its ability to serve a customer. To serve a customer you have to have reliable power, power you can depend on. Economic flow is not entirely reliable. It can be cut off any time, slop-over or incidental, you know what I am talking about?

Q. Yes.

A. That doesn't stay on the line. We hardly have any control over that.

Q. And what comes over to you, you use?

A. Yes, sir.

Q. If you want to return to the other company the amount which you have received and used in that fashion you have to generate it and send it back?

A. Yes, sir.

Q. That is true?

A. Yes, sir.

Q. And they use it in their System?

A. I conclude they do, but I don't know.

Q. What would you do with it?

A. I don't know how much would be consumed in

losses.

Q. They might use the power for their losses?

A. I don't know.

Q. Is that the way you measure your losses, charged against the slop-over?

A. No, sir.

Q. Do you think a general operating system such as Public Service would charge that against losses?

A. I don't think so. I am only giving you an opinion, not a fact.

Q. As a matter of fact, you don't think they ever have any intention or ever do measure their losses by slop-over energy?

A. I don't know how they measure their losses.

Q. As a good operating company, would they do it?

A. I don't know how they measure their losses.

Q. Would a good operating company measure their losses that way?

A. No, I would not think so.

Q. You know the Public Service is a good operating company, isn't it?

A. A very good operating company.

Q. Then you assume they would not measure their losses against that kind of flow?

A. No.

Q. Under those conditions which you have related, Mr. Lytle, the dependence you have upon this connection is a safeguard against the failure of one of your generating units?

A. Yes, sir.

Q. It occupies the same relation to your System as if you had spinning on your line the reserve capacity to take care of such an emergency?

A. It acts the same as spinning capacity would act, yes. Very much the same.

Q. And for safe operation must be as dependable as

spinning reserve?

A. It isn't as dependable as spinning reserve, no. I think any operating man will agree with me in that. I think spinning reserve would be considerably more reliable.

Q. Due to the fact that you have it under your control whereas with your connection you are relying on somebody else?

A. Yes.

Q. It is like having a spare automobile in your own garage and relying upon somebody under contract to furnish you a car when yours breaks down?

A. Not exactly. Turbines, I would consider somewhat more reliable than lines.

Q. Then generating capacity located adjacent to an interconnection would make that interconnection more dependable than an interconnection that was at some distance from the generating capacity, isn't that true?

A. Oh, somewhat, yes.

Q. On the same relation you just mentioned the spinning turbine on your own line is to be preferred over an interconnection because you are in close proximity. I say, with respect to an interconnection that is close at hand, a reserve generating capacity is more desirable, can be relied upon to a greater extent than an interconnection that is at some distance from the generator.

A. Yes. You have to consider the type of plant and line,—

Q. Well—

MR. PAXSON: (Interposing) Let him explain.

BY MR. McALLISTER:

Q. Answer that first.

A. A good plant and good lines are better than a poor plant no matter where located,—

Q. (Interposing) Naturally.

A. A good plant where you need it is better than a poor plant, I will admit that, sure.

Q. Assume we have got good lines and a good plant adjacent within a couple miles from an interconnection, is that more dependable than an interconnection so far as you would be concerned than an interconnection with good transmission lines and a good generating plant which is located 15 or 20 miles distant?

A. It would be somewhat more reliable, yes.

Q. What would you say of the dependability of the interconnection between Mechanic Street Substation and your Atlantic Substation?

A. Between Mechanic Street Substation and Atlantic Substation?

Q. Yes, the dependability of those lines.

A. The dependability in the past has been excellent.

Q. You know the character of those lines, do you?

A. Between Mechanic Street and our Substation?

Q. Yes.

A. I know the character of them, yes. It has been quite good. We have had some cable failures and so on, but on the whole I would say it is pretty good.

Q. Is it just pretty good, or has it been what you would expect under any and all circumstances for a connection of that kind? Is there any inherent defect in the design of that connection?

A. No inherent defect in the design I know of.

Q. How would you improve it? What ought to be done to make that a real dependable connection?

A. Put new equipment in, that is about all I can say.

Q. In other words, all that is in there is wear and tear, that is being in the service for a long period of years?

A. Yes, sir.

Q. Now when was it put in?

A. 1925.

Q. 1925?

A. Yes.

Q. Has any part been replaced?

A. Sections of cable have been replaced. Where there has been a cable failure they sometimes have to cut in a new piece of cable. In that way it would be better than the old cable. My answer is largely—

Q. (Interposing) You don't mean to say this is not a dependable connection?

A. I don't mean to say this is not a dependable connection?

Q. Yes.

A. It has always taken care of us in emergencies which we have had.

Q. You would not say it is a dependable connection?

A. I am not going to the extent of saying it is perfect.

Q. I didn't ask you this. I asked you if this was a dependable connection?

A. Quite dependable.

Q. How about these lines from Atlantic Station to the Livingston generating plant, are they more dependable than those lines over to Mechanic Street?

A. Are they more dependable?

Q. More dependable, yes. You seem to have some doubt about that connection. I want to find out what you think about it with respect to Livingston.

A. I believe they are more dependable, yes.

Q. You mean from Atlantic to Livingston your lines are more dependable?

A. That is my belief, yes.

Q. Tell us why?

A. Principally because they are overhead lines that have shown very little depreciation, whereas with cables I am not sure.

Q. How about this underground cable you referred to, I think at St. George?

A. That underground cable is newer than any connection.

Q. Just because of the age, that would be your reason for saying it is more dependable?

A. Not altogether on account of age. The art of making cable has been improved. The cable you would buy today may be better than one bought five years ago. There may be an improvement in it over one five years ago. It is not all due to depreciation, you understand what I mean.

Q. I understand.

A. Due to improvement in the art.

Q. You know the type of cable underground there?

A. Yes, sir.

Q. To make the Mechanic Street connection?

A. Yes, sir.

Q. Now, what improvement has been made in the manufacture of the underground cable which you have compared with that one?

A. Well, the improvement of the design in our cable, the cable running from Livingston to St. George, that is what you mean, isn't it?

Q. Yes.

A. It is a different type. It is type H, the letter H, which means licensed under the Hostetter Patents.

Q. You can't compare the two. One is a submarine cable and the other lies in conduits.

A. That is true, but there is not such a vast difference. That is true, one is under water, but on our side a certain length is in conduit from the water edge to the substation and on the Jersey side the same is true.

Q. The dependability of your line is important in the art of manufacture of that submarine cable?

A. I would say so.

Q. I didn't complete my sentence. The art of manufacturing cable which you have installed up around St.

George as compared with the cable that lies under the Killvan Kull—

A. (Interposing) I think that cable we have between Livingston and St. George is better cable. I do.

Q. What is the distance between your Atlantic Substation and the Mechanic Street Substation?

A. It is about 7,500 feet. I am giving you these figures out of my head. I don't want to be held right down to the foot, about 7,500 feet.

Q. What is the distance from the Atlantic Substation down to the water edge? There would be a difference at high and low tide.

A. There is about 3,800 feet from Mechanic Street to water edge. It is about 2,000 feet under water. It is about 1,600 feet from the water edge to Atlantic Substation. Those figures are the best I can remember.

Q. That is all right.

A. They are pretty close.

Q. What is the capacity of the circuits from Mechanic Street Substation to your Atlantic Substation?

A. I would say 13,000 or 14,000 KVA, or something in that area, continuous load each.

Q. Has there been a time when both of those cables have been out of service?

A. Yes, sir.

Q. They have been both out at the same time?

A. There have been times when both cables were out of service at the same time.

Q. When was that, Mr. Lytle, and how often?

A. I don't know whether I have any data on it or not. Let me see. I remember in 1937, in the spring of 1937 those cables, I think, were out about a week. Both out at the same time for about a week. I don't like to evade anything, but it is hard to remember.

Q. That is all right. During the time those cables

were out how did you assure yourself against the emergency?

A. By running more machines.

Q. In other words you put the reserve capacity you might be required to throw on the line at any time, you kept that hot or spinning on the line, so to speak?

A. That is true. The interchange was available for emergencies. When it wasn't available we did something else about it.

Q. If there should happen to be a failure of the cable at the time you were called upon to use it to maintain a load that had only one reserve, it would be one of those cases where it would be too bad, isn't that right?

A. Yes, sir.

Q. In other words there would be a failure until you could get your cold reserve on the line and operating?

A. That is true. We can't guarantee perfection in anything.

Q. That is right.

A. We do the best we can.

Q. We had some discussion this morning about this incidental flow, slop-over and what-not, as it has been called. I think you stated you had no need for it and didn't want it and would not have anything to do with it if you could prevent it, isn't that so?

A. I stated that, yes.

Q. There is one way to prevent it, isn't there, and that by opening the switch?

A. Sacrificing service to our customers.

Q. Just tell me how you would sacrifice good service to your customers by opening the switch, the emergency connection to Mechanic Street?

A. If we were running normally we would have the capacity on that carries our load—

Q. (Interposing) Right.

A. And we have an accident or emergency, something happens.

Q. All right.

A. Now we have a number of customers to whom a momentary interruption, I mean less than a second, to whom a momentary interruption is very serious. I want to illustrate that. We have a number of large factories with a great many motors and some of the motors are equipped with a no-voltage release device, so when the electricity goes off they take that motor off the line almost instantaneously, very quickly.

Suppose the switch were open on the interconnection, the generator fails, the line fails, they would get a momentary interruption and a momentary interruption to you reading is of no significance. Those lights could go down and it would not bother us.

Q. No.

A. In those factories and mills all the motors, not all, but a lot of the motors have to be started in sequence. I can't go into detail of the customers, just what they are. I do know it is very serious to them and an interruption of our service only a second would cost them an hour or a half hour. Often material is damaged in process and it costs them distinct money losses and distinct labor losses.

I have gotten more complaints from customers, more criticisms, on that one thing than any other. That is why we keep it in all the time and that is why it is much better than to operate with that switch and put up with that incidental power. We don't like it. It is no good to us.

Q. That connection is vital to your satisfactory operation, taking into consideration—

A. (Interposing) No, it is not vital to our satisfactory operation. If we didn't have the intereonnection we would have more generators on. I could not say it is vital. It isn't. We have enough capacity to replace our biggest unit.

Q. That is true.

A. I can't say it is vital. It is a help.

Q. What I mean to say is this. When you retain at cold standby the 10,000 and 6,000 kilowatt generators, at that time it is vital to your operation?

A. It is very important to our operation.

Q. It is vital, isn't it from what you have just described? It is vital to the supply of the kind of service you do.

A. I don't like—pardon me, I am sorry.

Q. It is vital through your operation by which you say you undertake to supply to your customers—

A. (Interposing) I don't like to use that word vital. Vital means a matter of life and death to the company. It is not. It would be a serious interruption. To that extent the connection is very important. It is not vital.

Q. We won't quibble over the definition of a word.

A. I don't like to quibble, Mr. McAllister. I don't like it.

EXAMINER SPENCER: All right, proceed with your examination.

BY MR. McALLISTER:

Q. It would be a matter of serious consequence from the standpoint of good operation?

A. Yes.

Q. Put it that way. Isn't that true?

A. That is true.

Q. Now when you maintain an interconnection of this kind with another System, and that flow of energy comes to you at various times, I said that flow of energy, I mean there is a flow of energy to you at various times from the other System with which you are connected. You say that you undertake to eliminate that condition immediately?

A. Yes, I did say that. That is the instructions the men have.

Q. Now how long does it take to eliminate that flow to your System?

A. I will answer that by telling you what they do. The man who has charge of the System operation has a watt meter before him.

Q. Let us place that man. Where is he?

A. He is at the St. George Substation. He controls the System. He has a watt meter connected to the interconnection. It doesn't measure anything else. It is on separate wires. That is before him all the time. It reads two ways, power flowing out from Staten Island Edison or flowing into Staten Island Edison. When he sees that move either way he immediately calls the power house, the switchboard attendant at the power house at Livingston on a private line, a line that is connected at all times, and tells him to pick up so much load or drop so much load. They generally do it on account of the size of the meter in blocks of 500. Actually he doesn't call up. They have worked out a system of rings, two rings to drop 500, like that, they don't even have to telephone. I never have timed it. The instructions are followed promptly and it will take the time it takes for the men to do it. It is not complicated.

Q. What happens at the generating plant when they get the instructions?

A. The man himself who gets the signal can adjust the governor on the turbine.

Q. How long does that take?

A. A few seconds.

Q. What does the generator do?

A. Either takes on more load or drops more load.

Q. Does the generator operate instantaneously?

A. Nothing mechanical operates instantaneously. It operates in a couple of seconds. The governing mechanism is driven by an electric motor. It would take a few seconds.

Q. The reason you go through these various steps

is to try to balance the load on your System with what you are generating, isn't that correct?

A. The reason is to reduce to a practical minimum what is slopped over.

Q. What has been coming over this interconnection?

A. They have instructions, I tell them to keep that indicator on zero.

Q. As a matter of fact, is there anything you can do at that interconnection to stop that flow except opening the switch?

A. That is all.

Q. What you try to do is balance the quantity of electricity generated, balance the quantity of electrical energy you are generating against the load you are carrying and, if you can do that, to a certain extent you are balancing the flow of energy over the interconnection?

A. We are trying to keep that incidental flow at zero. That is what we are trying to do.

Q. That is the end that you are trying to attain. To attain that end what means do you take? You have given the physical process, but in the last analysis what you have done is to try to balance your load against generation, isn't it? I include in the load all losses and everything on the system.

A. Trying to balance what?

Q. Your load.

A. Trying to balance what?

Q. Your load with your generation.

A. Oh, yes, to keep our load all on our own plant.

Q. That is balancing the load.

A. I suppose you would use that term.

Q. What would you call it?

A. I would say carry our own load.

Q. Carry your own load?

A. Yes, sir.

Q. But supposing as you do balance or about the

time you are undertaking to balance it there is a further load of a thousand kilowatts coming on your line, where does that load go?

A. Where does it go?

Q. Who carries that load at the time it comes on?

A. Suppose it is a load on the Atlantic Substation—

Q. (Interposing) Now,—

A. (Interposing) May I finish?

MR. PAXSON: I was wondering if you were going to let him answer.

MR. McALLISTER: I am going to let him answer. I was wondering whether I would add something to the question or not.

MR. PAXSON: All right, I see.

THE WITNESS: The same routine would be repeated. He gives the signal and you say some load comes on?

MR. McALLISTER: Yes.

THE WITNESS: And then he would give—

BY MR. McALLISTER:

Q. (Interposing) There is an inflow over the connection.

A. That is right.

Q. Caused by the flow coming on the line?

A. That is right.

Q. It naturally would divide in some proportion between your Livingston plant and the Mechanic Street?

A. Probably would unless there is a corresponding change in the other System, the Public Service System. There could be a counter-balance by the time a load came on some place, it would tend to cancel the other. It is unpredictable, you can't do anything.

Q. If the two loads came on instantaneously, that is true?

A. Yes, sir.

Q. If there was a difference between the two it would reflect itself and rectify itself afterwards, isn't that right?

A. Yes, that is right.

Q. A load of 1,000 kilowatts coming onto a line at a time is fairly sizeable load, isn't it?

A. I look at this relatively. A thousand kilowatts on Public Service is very small. A thousand kilowatts on us is somewhat larger. I would not say a thousand kilowatts is something you would call large. Our peak load is 31,000, 1/30 of the peak, it is not a tremendous load.

Q. It would be about 5 per cent of your load. It would be appreciable on the line.

A. It would be noticed at the plant and the substation.

Q. And it would be enough to throw out this balance over the interconnection if it was being maintained?

A. It would be thrown out of balance and would be indicated immediately and corrected, as I told you.

Q. Are there any times, Mr. Lytle, when this incidental flow continues over a period of five or ten minutes, coming to your line?

A. It might, for this reason, that we have at times, for instance there have been times when this meter equipment was out of order and times like that it could occur.

Q. It might flow for several hours, might it not?

A. No, not likely several hours because when anything like that happens Public Service gives us a ring.

Q. Suppose during one period you had accumulated, because in the manner in which you operated you accumulated a flow of energy to Public Service, and to balance out, might you not take that energy continuously for a period of time to offset what had flowed in the opposite direction?

A. Well, yes, we might. We might. But the out-of-balance doesn't become very great and can be spread over some time. I just can't tell you the exact amount of time we have done it in the past. We have never considered it amounted to very much, the whole problem of incidental flow.

Q. What would be the total kilowatt hours flowing in both directions over the course of 24 hours?

A. Kilowatt hours, I have the yearly figure. You will have to reduce it. It is in the neighborhood of three million a year.

Q. Some days are high and some are low?

A. The days balance out pretty well on the incidental. However, I haven't it in mind. I can't remember figures from day to day.

Q. No.

A. I will tell you this—

Q. (Interposing) Go right ahead.

A. As far as I know they keep it pretty well in balance all the time.

Q. Of course the records will show from day to day how this was?

A. Yes, sir.

Q. I show you a statement which is Exhibit No. 19 in the record supplied by the Public Service Electric and Gas Company and call your attention to reading on July 12th, and ask you if that doesn't show that for that day there was a very considerable quantity of energy moved from Staten Island to Public Service in excess of the quantity which was delivered in the reverse direction?

MR. PAXSON: What date was that?

MR. McALLISTER: I think July 12th.

THE WITNESS: You told me the 12th. That is true.

BY MR. McALLISTER:

Q. That shows, does it not, that the quantity moving to Public Service from Staten Island was 6,000 kilowatt hours and the quantity of energy moving to Staten Island from Public Service was 15,000?

A. That is true.

Q. Or a difference of 9,000 kilowatt hours?

A. That is true.

Q. During a day such as that there would be a rather marked flow of energy to your lines, would there not?

A. That day there would be a difference of 6,000 over the 24 hours.

Q. 9,000?

A. The 14th, isn't it?

Q. No, the 12th.

A. The 12th?

Q. Really, what I had in mind was July 13th.

A. I will take either one. It would be 9,000 over 24 hours.

Q. It would be 9,000 over 24 hours?

A. Yes.

Q. That is if we assumed it all flowed during the 24 hours, but we have got to permit some time for this 6,000 to flow in the opposite direction, so what we have here is 15,000 flowing over the 24 hours if we assume it is evenly divided?

A. Yes, that is all right, roughly.

Q. That seems all right roughly?

A. Yes, sir.

Q. There is a marked difference in the flow as compared to balancing it out in the matter of a few minutes.

A. Yes, you will find the differences when the men fell down on the job, that is true. I wish to add this, it wasn't intentional.

Q. But that is not an unusual occurrence, is it?

A. Well,—

Q. (Interposing) I mean looking at the report, which is Exhibit 19, it shows there are many days when a like situation prevails. Take the 12th and the 11th of the same month, July, 1937.

A. It may be explained. I am saying it may be explained by the fact our recording instruments were out. We have trouble occasionally with the instruments being out of order. Understand, there are about 15 miles of controlled cable between Atlantic and the watt meter at St. George, and occasionally it will be out of order, and out for a couple of days. During those times we haven't control. Usually Public Service calls and tells us, but there is not nearly as accurate a way of operating it as when we have that meter and circuit in operation.

Q. The records of course indicate what the operation has been?

A. Yes, sir.

Q. Over that period of time?

A. Yes, sir.

Q. Can Public Service, through their operation on Mechanic Street also control this flow as you do?

A. Not at Mechanic Street; no, sir. The only thing they can do at Mechanic Street, I believe, is to open the breaker.

Q. Open the breaker?

A. Yes, at Mechanic Street, yes.

Q. That would be the only control they have over that flow?

A. They have no control that I know of over there.

Q. Why is it, Mr. Lytle, Public Service can not control that flow of power at Mechanic Street?

A. Because they have no equipment there with which to do it.

Q. If they were operating a generating plant at that point they could, and carrying the load in that vicinity to a certain extent it would balance out on their line so

that it would eliminate the flow across there.

A. If they were operating a generating plant at Mechanic Street tied in interconnection with the rest of their large System it would be very difficult for them to do. They would have to change too much else. Our plant is the point where it is most easily controlled. I think that is technically correct. We have almost complete control.

Q. As a matter of fact speed and frequency is controlled by connection with Public Service.

A. Our frequency is controlled by connection with Public Service, that is true.

Q. And you operate in parallel with them?

A. That is true.

Q. This balancing out we have been talking about, which is accomplished by your control of your generating station is not in fact a control of the energy that passes backward and forward over this interconnection as such.

Let me make myself clear. What you attempt to do is to—as you put it—carry your own load, and if you do that exactly there isn't any slop-over of energy, as you call it of Public Service and Staten Island of any importance, isn't that true?

A. What we actually do is to try to keep the inflow of energy flowing over there at zero.

Q. But that is accomplished, as I say, through your placing on your generating plant all the load on your line as near as may be?

A. I would say it works the other way. We know when there is any incidental or slop-over. We are carrying our load and our load only and what we attempt to do with our facilities is to keep that inflow at zero.

Q. When it comes to a time when there is a change in that load on your line, let's assume that you are attempting to eliminate it as nearly as you can, you have no control of the energy that comes across from Mechanic Street.

You can't put a sieve there and catch it and throw it back.

A. No.

Q. It is going to flow in there and become part of the energy of your line.

A. Until we correct it.

Q. Until you correct it?

A. Yes, sir.

Q. Now if the energy that is on the bus at Mechanic Street is energy that has been generated on their System, this constitutes the energy that will flow onto your line?

A. All I know is we are connected at Mechanic Street.

Q. I am asking you as an electrical engineer, you can only get off that bus the energy that is on it through your connection?

A. Of course it is true we can't get energy except off that bus.

Q. And if that energy is generated by the plant of Public Service Electric and Gas Company then, that is the source of power coming to you?

A. If the energy on that section of the bus with which we are connected is generated by Public Service, yes.

Q. Likewise, if it is energy generated by Jersey Central Power & Light Company then, that is the energy that comes to you?

A. The energy coming into that section of the bus to which we are connected, that is the energy which we get. I mentioned the section, that bus can be sectionalized in different ways.

Q. What do you mean by sectionalized?

A. Parts of the bus can be disconnected from other parts.

Q. How would that be accomplished ordinarily?

A. By switches, either oil switches or airbreak switches. It can be accomplished by both.

Q. You mean the opening of a switch on the bus in

the same manner in which you might open a switch on an interconnection that of course will sectionalize the bus the same as opening the switch on the transmission line to sectionalize the line?

A. That is correct.

Q. That is what you had in mind?

A. That is what I had in mind.

Q. You went into some detail this morning, Mr. Lytle. Explain that economy flow energy which you obtained from Public Service was priced on some formula related to the cost of generating by Public Service in relation to the least efficient generating unit which they had at the time on the line, isn't that true?

A. I don't think I described any formula. I said that the prices they would quote us for economy flow energy was the price it cost them to generate it. I think I said on the last unit they put in, which was probably the least efficient unit. That is my understanding of what I said this morning.

Q. That would be a correct statement according to your understanding as to how the price is determined for this energy?

A. That is right.

Q. You are not to be understood as saying that it is that energy that you get, but merely the means of determining the price of whatever comes to you, isn't that true?

A. That is true, I think. I would not attempt to say where it came from.

Q. I don't think it is part of the understanding, as you understand it, that the determination of the price in that manner is to be taken?

A. In other words negotiations we have, I mean personal negotiations where we get power from Public Service Electric and Gas, it is at their price, and I don't know anything more than that—

Q. (interposing) Let us put it this way so we

won't have any question on this record here.

If you were selling in an interconnected utility under the same circumstances, under the same kind of agreement, whereby the price which you would charge for energy delivered was to be determined by the cost in connection with the lowest unit that you put on the line, would you have any understanding that what you were selling was the product of that generator any more than the product of other generators on the line?

A. No, I would not.

Q. It is merely the means of determining the price for the sale of this energy. Because, in reality it is assumed when you are delivering energy at a time when you have a less efficient unit or machine, by increasing the operation of that unit, that is the cost now of supplying the excess energy you are trying to deliver?

A. I think that is true.

Q. Relatively speaking?

A. Yes, sir.

MR. PAXSON: Let him finish.

THE WITNESS: We dealt with Public Service. Nobody else was mentioned. No other plant other than theirs was mentioned that I know of. It wasn't up to me to investigate where any particular kilowatt was coming from. I didn't. I didn't know which plant they were coming from. All I knew, I had the understanding that we were getting power from Public Service Gas and Electric Company, which was getting power from somebody else. I don't know what their arrangements are. They didn't at any time mention anybody else and as far as I know it has no bearing on the price quoted. All I know you can ask a lot of hypothetical questions under certain conditions, all I know we are dealing with Public Service. I never have delved into it.

Q. What I am asking you is this, and I think it can

be simply answered, if you will just answer the question.

Let us relate it to the actual happening when you buy energy from Public Service, economy flow, as you have termed it, and it is supplied to you and you say the price is determined on the basis of the cost to them of generating that energy through the unit last placed upon the line, or if that isn't exactly right, by the least efficient unit on the line.

I asked you if it was your understanding that that was the energy to be delivered as economy flow or if that was merely a means of determining the price to be charged for a different energy?

A. I didn't understand that the energy would come from that particular generator.

Q. It is a means for determining the price?

A. It is a means for determining the price. I do not know from what generator it comes.

Q. That is the reasonable means between companies for determining a fair price?

A. It is a reasonable means of determining the price, yes.

Q. For that kind of energy?

A. Yes, sir.

Q. Mr. Lytle, do you supply any emergency energy to Public Service?

A. We haven't. I don't remember. We haven't in the last several years. I remember that. I would not say we never did. I would not remember whether we ever did.

Q. Do you supply any economy flow energy?

A. Not in recent years, no.

EXAMINER SPENCER: Let us take a recess for ten minutes.

(Whereupon a short recess was taken, at the conclusion of which the following occurred):

EXAMINER SPENCER: You may proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. Mr. Lytle, we may have covered this, although I do not recall definitely. I think I asked you whether you had supplied any emergency power to Public Service Electric and Gas Company at any time during 1937 and 1938?

A. No, sir.

Q. Have you supplied any of what you might call economy flow during that period?

A. No, sir; not that I remember of. I have no recollection of it at all.

Q. Do you know whether or not it is true that they relied upon energy which they received from you to the extent of 2,000 kilowatts in carrying their system load peak during the year 1937?

A. You mean 2,000 listed as incidental or slopover?

Q. I am not giving it any name, but 2,000 kilowatts supplied by your company to enable them to carry their system peak?

A. I have no recollection of supplying any power whatsoever for them to carry their load in 1937 at all. I have no recollection of it. If they did, they should have declared an emergency and we would have billed them for that power as emergency power. I have no recollection of having done that.

Q. If during a period of time on that day or the day before you had received an excess of energy from them, let us say, and during the ensuing period you were delivering back to them 2,000 kilowatts and it happened that while you were delivering to them that amount that they met their annual system peak, they might utilize that 2,000 kilowatts in carrying that load to meet that peak?

A. If they needed anything that we sent to them it was their duty to us to declare an emergency. I have no recollection of any emergency on their part. If they

received it and had to have it to carry any part of their load, that constituted an emergency. We try to be very careful and report everything, as you can see by the record—one minute, two minutes—and it is up to them to do the same thing. They never did it in 1937. At least, I have no recollection of their having done it in 1937.

Q. Let us put it in another way. I do not have the figures before me, but let us suppose they had 40,000 capacity on their line and they were generating 30,000, they were receiving from their interconnections another 30,000, and incidentally they were getting 2,000 from you: and let us assume that 62,000 was their annual peak. Of course, that peak is not their annual peak. But with 2,000 kilowatts that you supplied to them, that 2,000 kilowatts was available to them in carrying their peak at that time?

A. It was available to them. I don't think that ever occurred. They never notified us. It was then emergency power, if they needed it.

Q. You recall in my question that I said they had a capacity on the line for 40,000, but they were only generating 30,000. So you would not go up to the question of emergency, would you?

A. I am trying to say that they never declared an emergency. They never declared an emergency, which meant that they needed that power from us, that incidental power or whatever it was that was going across. They never needed it because they never declared an emergency.

Q. But just listen to the question, Mr. Lytle. You are actually sending them 2,000 kilowatts, not undertaking to say why you are sending it over there. It may be as I intimated, the result of a flow in the opposite direction on that day or on some other day and you are balancing out. But to the extent that you do send them 2,000 kilowatts and it extends over a period of an hour—2,000 kilowatts—they can use that to meet their peak just

as well as they can use power which they would generate on their own lines?

A. That is possible. The 2,000 seems pretty strong to me to ever try to adjust something. That is a load of 2,000. Our operators ought not send 2,000 at a time. However, they could use it if we sent it.

Q. They could use it if you sent it over there?

A. Yes.

Q. Or they could sell it? Or they could keep that much capacity off of their line?

A. We send it over there, and then I have no more control over it after I send it over there.

Q. And they send it out wherever the load is to carry the load that is on their system at that time?

A. That is possible.

Q. In the reverse direction when you get a like quantity that comes over to your line you likewise use that in supplying the load that is on your line during the time that it is coming to you?

A. That is true. It will come into our system to supply load and losses. However, we stop it right away.

Q. How is that?

A. We stop that flow right away unless we are on economy flow or on emergency.

Q. I don't think the records I showed you a little while ago bear that out. I am going to show you that again and ask you how you explain this very great difference on some days, a difference of as much as 9,000 kilowatt hours. That means continuous flow. It is a difference of 9,000. As a matter of fact, there are 15,000 shown for July 13, 1937 coming to your company, that is, 15,000 kilowatt hours, and there is a flow in the reverse direction of 6,000 kilowatt hours. Now, I am asking you, Mr. Lytle, does it appear to you as though there was a balancing out during that time?

A. There wasn't a balancing out during that time;

I don't think.

Q. There couldn't be, could there?

A. They do not balance. The readings you gave me do not balance.

Q. I am directing your attention also to the 12th, the day preceding, in the month of July, 1937. Will you give the figures for that date?

A. This is July 12, 1937?

Q. That is right.

A. SIEC to PS 5,000; PS to SIEC, 12,000.

Q. That does not indicate a balancing out either, does it?

A. No, sir; it does not.

Q. I am not making a particular point of the date or the time or anything else; but it does show you do not balance out from minute to minute, as a matter of fact?

A. We do not always. We cannot always do it. In operation and in carrying on a system accidents will happen. It may have been a day when the metering equipment was out of order.

Q. Let us look through each month and see if that condition does not persist during each month. Let's come down here to the 15th of August, 1937.

A. That is right.

Q. There also you sent to Public Service Electric and Gas Company 7,000 kilowatts and you received from them 12,000 kilowatts?

A. Yes; that is right.

Q. And as you look down here through all of the dates through all of these months doesn't it appear that it is the exception rather than the rule that there is a balancing out during the day?

A. I will not admit that it is the exception; no, sir. There are a lot of days here that are just about equal. There are a great many days that are just about equal.

Q. Just about?

A. Yes.

Q. Take this right down here (indicating).

MR. PAXSON: What is it? What date is it?

THE WITNESS: It is August, 1937, beginning with the first.

BY MR. McALLISTER:

Q. The first few days do balance out, down to the 7th. Is that right?

A. They balance just about exactly. It is the 8th.

Q. Including the 7th.

A. The 8th too.

Q. 8th and 9th?

A. 8th and 9th.

Q. That is balancing, isn't it?

A. It is not a perfect balance. It is very close.

Q. From there on to the end of the month there is more out of balance than there are in balance?

A. Well, let's count them. Unless you expect a perfect balance, there are, yes. But there are some of them that are very close. A great many of them are very close—7th and 9th, 7th and 8th.

Q. Read the others. There are 11 and 7?

A. Suppose I read all of them.

Q. We have the exhibit in the record. This is an exhibit in the record.

A. It is not a perfect balance. I did not intend to try to claim that.

Q. I merely wanted to have you realize and so state for the record that this is not a balance maintained from minute to minute.

A. It is not a balance maintained from minute to minute; no. That is right.

Q. And there are times when there is a very considerable flow in each direction. Isn't that correct?

A. I don't see that it is so very considerable; no.

24,000 a day would be 1,000 an hour. 24,000 a day difference I do not find there. Still that would be a thousand an hour. A thousand an hour certainly is not considerable to Public Service Electric and Gas Company. That is a drop in the bucket. I would hardly consider it considerable to us. Those things are relative. They have to be.

Q. Do you relate them to the system or relate them to the ability to serve a customer? I mean if you related the thing you have the two elements of relation that can be used.

A. My two elements of relation are the two elements which make this interconnection, the two systems. Public Service has several hundred thousand peak load. I don't know just what it is. Now, I am relating a thousand an hour. A thousand of that is not important relatively to their load. I don't think it is very important relatively to ours.

Q. How about 2,000 or 2,500 kilowatts?

A. If you go up high enough you will reach the point, of course, where it is.

Q. 2,000 or 2,500?

A. Certainly I don't think it amounts to anything to Public Service, when they have several hundred thousand peak load. 2,000 in our little system for a short time does not amount to much. If it runs all day it would not affect us vitally.

Q. But it is flow of energy?

A. Yes.

Q. And it is a determinable quantity that indicates that it persists throughout all of these days with very few exceptions, and that flow is in both directions during the day, as a rule?

A. Yes.

MR. PAXSON: Just a moment, please. I move that the question with the word "very few exceptions" be stricken. He has already gone down the line and

said there were not many exceptions. You have such an involved question that I do not believe you intended to say that.

EXAMINER SPENCER: Is that an objection to the last question?

MR. PAXSON: Yes.

EXAMINER SPENCER: Will the Reporter read the question, please?

(The question was then read by the Reporter.)

MR. PAXSON: He has taken him down the line; and he showed him, and he said he could not generalize. Now, he has put in "very few exceptions" to catch him, I guess. The thing speaks for itself. You see there are a number of questions there.

MR. McALLISTER: As the questions were put and as the answers were given they were correct.

EXAMINER SPENCER: What is your objection?

MR. PAXSON: The question contains three questions and the answer was "yes".

Let him ask each question separately.

EXAMINER SPENCER: I assume the witness meant "yes" to each question, if there were three questions.

You may proceed.

MR. McALLISTER: I am sure the witness was not misled.

MR. PAXSON: All right. I will withdraw the objection.

EXAMINER SPENCER: You may proceed with your examination.

BY MR. McALLISTER:

Q. During the times when there was a continuous flow of energy to you from Public Service Electric and Gas Company of, let us say, from 1,000 to 2,500 kilowatts, to that extent your generating equipment is relieved of the generation of that amount of electric energy?

A. Yes, sir.

Q. In supplying your customers it performs the same function that a like amount of energy would perform, whether you bought it as emergency energy or as economy flow? Isn't that true?

A. At the time any energy comes over into the system it is used in that way at that time.

Q. If you had arranged with Public Service Electric and Gas Company for economy flow energy and you were relying upon that for some reason in supplying the load that you had on the line, if for some reason Public Service advised you that they could no longer furnish it to you, if there was necessity for it on your line you could then call upon them for the continuation of that same flow as emergency energy under your emergency contract? Isn't that true?

A. It is true if they have it; yes. I understood from your question that they could not supply it.

Q. They were unwilling to supply it further on the economy flow basis but for some reason you were depending upon it, and then at that instant you could call upon them to supply it to you as emergency power?

A. We could if we had an emergency. When we take economy flow power we have enough capacity on our lines to take care of all of our load, regardless of the emergency flow arrangement.

Q. But what I am saying is that if something had occurred so that that was to be pulled off the line and it was suspended suddenly you could call for the continuation of that on an emergency flow basis because if it was

going to affect your line it would be an emergency?

A. If the emergency occurred just when they cut it out we could call upon them for an emergency. We could ask them for it.

Q. In reality the only difference would be a difference in price?

A. There would be a difference in price. There is no doubt about that. The answer to the rest of your question depends upon why they would stop the flow, the emergency flow.

MR. PAXSON: You mean stop the economy flow, don't you?

THE WITNESS: Yes; I mean the answer to the rest of the question would depend upon why they stopped the economy flow.

BY MR. McALLISTER:

Q. The emergency contract works both ways, doesn't it?

A. Yes.

Q. They can rely upon you in case of emergency?

A. Yes.

Q. As well as you can rely upon them?

A. Yes.

Q. To the extent of your reasonable capacity there is an obligation which runs both ways, that one will come to the assistance of the other?

A. As I understand it, the obligations are the same. They can rely upon us for what we give them, upon what we can give them, and vice versa. They can't get it if we haven't got it. If they haven't got it we can't get it, even in emergency. They say they haven't got it and that they are not equipped for it. There is no firm power in the thing at all.

Q. But, as you explained this morning, Mr. Lytle, it is as reasonably dependable, so far as you are concerned,

as an interconnection can possibly be in meeting any condition that might arise on your line?

A. It has proven to be dependable in the past.

Q. And it is such that you would reasonably expect it to be dependable in the future, isn't it?

A. Oh, yes; as you can reasonably expect it to be.

Q. There is just one term that you used this morning that raised a question in my mind. It may be perfectly clear to you. But you said it was impossible to control the flow through the interconnection and you said the direction of that flow and its quantity was unpredictable. You used the word "unpredictable". What did you mean by that?

A. Practically I meant this: I am operating a system right now, and I cannot tell five minutes from now or ten minutes from now or an hour from now what the incidental flow will be. I cannot predict what it will be. It comes on quickly. We cannot control it.

Q. There is a certain range, then, within which you would expect it to operate, isn't there?

A. Oh, yes; there is a certain range. The range we know from experience. But, as I say, we cannot predict what will happen. Within the range at which it has operated I cannot predict even from one minute to the next. The men on the job there, the men operating the system, cannot predict it.

Q. Does the condition created by a variation of loads coming onto or going off the line on either system affect the flow to a certain extent?

A. I believe usually.

Q. What is your normal load on the Atlantic substation?

A. Do you mean our peak load?

Q. Well, the reasonably heavy load. I am not looking for just the one maximum load.

A. I would say the normal load would be within

2,000, or something on that order, although I haven't readings with me to straighten you out on that.

Q. At what substation is the heavy load on your system?

A. Livingston has the heaviest load.

Q. You have a substation in connection with your generating plant?

A. Yes.

Q. And you call that Livingston substation?

A. Yes; we call that Livingston substation. It is the biggest one.

Q. And if you figure the Atlantic substation to be 2,000 on that same basis what would be the load at Livingston substation?

A. I would say the load that we are delivering to our customers is in the neighborhood of 5,000 to 6,000 at Livingston. I would say about 5,000 on that basis.

Q. On that basis?

A. Yes.

Q. Then, as you come down on your system you mentioned two 33 k. v. lines which come down—to where?

A. Eltingville.

Q. From that point back to Livingston substation what portion of your system load would be located in that area?

A. 60 per cent or 70 per cent, or something on that order—all of the substations from Livingston out that way toward Eltingville, and I would say 60 or 70 per cent.

Q. In considering all of the substations which you have, are the loads at the substations other than Livingston about equally divided—five or six thousand at Livingston and about 2,000 at each of the others?

A. They are pretty close to being equally divided. Yes; it is fairly close to that.

Q. Then that would be based upon a load of about 20,000 or 21,000 kilowatts for the total system?

A. That would be sort of a normal load or average load. It would not be a peak load or a low load. It would be a day load, or something like that.

Q. What you might consider about normal peak load during the day?

A. Yes; that would be a pretty good way. You worked it out at 20,000 or 21,000?

Q. Yes.

A. Well, it is around 19,000. You worked it out pretty close. That is a pretty good figure.

Q. Aside from Livingston the rest of your load is pretty well split up through various substations? Of course, with the predominant load toward the northeasterly section of the Island?

A. Yes; I think that is about right.

Q. Livingston and over around St. George?

A. Livingston, St. George, Clifton—that is all thickly settled. It is a fairly well loaded section through there.

Q. Would the load on that section be heavier than the load on the other line, you might say from Eltingville to Livingston?

A. Well, both run from Eltingville to Livingston. I would like to have you show me. You said the other line running from Eltingville to Livingston. Both of them run from Eltingville to Livingston.

Q. I mean the other line, outside of the one that goes through St. George. One goes through St. George.

A. This line is the heavier load (indicating).

EXAMINER SPENCER: Indicate the line or describe it so that the Reporter will have it in the record.

THE WITNESS: May I say the easterly line?

MR. McALLISTER: I think that is right.

THE WITNESS: Actually the Island does not run North and South. It is all mixed up.

BY MR. McALLISTER:

Q. But you have no substation on that line from Livingston to Eltingville?

A. No, sir; not between Livingston and Eltingville.

Q. That is a straight 33,000 transmission line?

A. It is now. We expect a substation in there. We expect to put a substation in there, roughly half-way.

MR. PAXSON: Just a minute. Did you hear that question?

THE WITNESS: A straight 33,000 volt line?

MR. PAXSON: Transmission line, he said.

THE WITNESS: No; I do not admit that it is a transmission line at all.

MR. PAXSON: You were not putting something over, were you, Mr. McAllister?

MR. McALLISTER: No. But it indicates the normal reaction of the man, that it is a transmission line.

THE WITNESS: I actually did not hear the word "transmission" or I would not have said anything. I did not hear that word, and I want the answer qualified.

BY MR. McALLISTER:

Q. When interconnected systems are operated with a closed connection, either two or three systems, there is a condition between those systems as regards flow of energy which the operators are not in a position to control? Is that true?

MR. PAXSON: If the Commission please I want to object to that question.

MR. McALLISTER: I have just asked the witness the question, Mr. Examiner—

MR. PAXSON: Just a moment, please. We have listened to a long line of cross examination, a large part of which is not proper cross examination.

Is he asking his opinion as an expert now and making him his own witness, or what is he doing. Certainly there is nothing in his direct examination that has anything to do with three or four different systems.

MR. McALLISTER: The witness testified at rather great length regarding this flow, and he said it was unpredictable and uncontrollable, and he used any number of adjectives to describe it. He called it slop-over and incidental flow. What I want to know is the opinion of an expert engineer.

MR. PAXSON: Go right ahead.

MR. McALLISTER: I would like to make my statement complete before Mr. Paxson has any remarks recorded.

MR. PAXSON: Go right ahead.

EXAMINER SPENCER: You may proceed.

MR. McALLISTER: As I was saying, Mr. Examiner, the witness has testified regarding this character of flow between systems which are interconnected, and I have been attempting to confine my cross examination—

EXAMINER SPENCER: Are you asking about these interconnected systems you have been questioning him about?

MR. McALLISTER: That is exactly what I am asking him about. I would like to have the question read and put to the witness, and I would like to have an answer from the witness to the question.

EXAMINER SPENCER: Will the reporter read the question, please?

(The question was then read by the Reporter.)

EXAMINER SPENCER: That is concerning these particular connections to which you have been referring? Are you asking about the same system to which you have been referring and about which you have been talking to him?

MR. McALLISTER: It is the same subject matter, Mr. Examiner, yes.

MR. PAXSON: Is this a hypothetical question?

EXAMINER SPENCER: What I was trying to find out was whether you were continuing your cross examination on the same subject matter you were asking him about or whether you were asking him a hypothetical question as an expert.

MR. McALLISTER: I will say this, Mr. Examiner.

MR. PAXSON: I did not ask him any questions on any such testimony. Now, is he making him his expert witness?

EXAMINER SPENCER: He is asking him now about this same system, between the Staten Island and the Public Service. I think the witness has testified to it.

MR. McALLISTER: He testified to it very much at length on direct, I think, and on cross examination, and I would like to have him answer the question just as it stands.

EXAMINER SPENCER: Mr. Lytle, will you now answer the question?

THE WITNESS: Yes, sir. I have had experience only with operating two systems—actual, practical experience.

BY MR. McALLISTER:

Q. But if there was a third system tied in there, as the Jersey Central is tied in at Mechanic Street substation, that operation also has an indetermined effect upon the flow of energy between Public Service and Staten Island Edison Corporation?

MR. PAXSON: Is that material? That is a purely hypothetical question on assumed facts. Assuming the facts to be true, to which the witness has not testified, is the question.

MR. McALLISTER: Mr. Examiner, I object to this sort of interference with the cross examination when the only purpose Mr. Paxson can possibly have is to attempt to indicate to the witness the course of answer that he is to make to the question or, rather, to indicate the kind of answer.

EXAMINER SPENCER: I think counsel has a right to object to the question.

MR. McALLISTER: But to make an argument upon that and on top of the objection is another thing.

MR. PAXSON: May I not give the Examiner my reasons for the objection?

We did not offer this witness as an expert witness to testify to hypothetical questions. We offered him to testify to actual operating conditions. I object to the question.

MR. McALLISTER: I will ask that the question be answered, Mr. Examiner.

EXAMINER SPENCER: I will overrule the ob-

jection, Mr. Paxson, and give you an exception.

The witness will answer the question.

THE WITNESS: I don't know what will happen between Jersey Central and Public Service. There is equipment made by which this incidental power can be controlled and limited. I don't know what they have there.

BY MR. McALLISTER:

Q. If there is none of that equipment which you say will control the incidental flow what will your answer be to that question? Just assume that they merely have that equipment which you have to control your interconnection.

A. Oh, there might be some slopover. There probably is some.

Q. Electric energy is not a respecter of ownership of line, is it?

MR. PAXSON: Is he asking for a legal conclusion?

MR. McALLISTER: No. I am asking him as a fact.

MR. PAXSON: We put this man on as a practical engineer.

MR. McALLISTER: As a matter of fact, I am asking him that question not as a legal opinion or anything else.

THE WITNESS: You asked me the question. You ask me what electricity is, exactly what it is, whether it is a respecter of ownership. You are inferring that electricity is something material. I don't know what it is. You don't know either, and nobody else does. I don't know what electricity is. I never saw a bit of it in my life. Nobody else did. When you use the word "flow" I don't know whether that is

true or not. You don't know whether it flows or not. Nobody knows. You can, Mr. McAllister, transmit energy without flow of a material thing. Energy also is something very vague and indefinite, so far as my head is concerned. You asked me if it is a respecter of ownership.

BY MR. McALLISTER:

Q. Do you deal with energy every day and refer to it as energy or as electric energy?

A. Yes; I do.

Q. You do do that?

A. Yes; I do.

Q. And do you use the term that electric energy is transmitted or flows?

A. Do I use the term?

Q. Yes.

A. I generally use the word "energy"; not that electricity flows. I generally use the term "supply energy".

Q. Suppose you have a watt meter on the line and somebody asks you which way it is flowing; doesn't that mean anything to you?

A. Of course, it does. It means which way the energy is flowing.

Q. The "flow" there is a proper term to use, is it not?

A. I would say it is. I would say that it is a proper term to use, that is, in connection with energy.

Q. Is it the term that is generally used?

A. The flow of energy?

EXAMINER SPENCER: Please continue your examination. Don't argue.

BY MR. McALLISTER:

Q. Going back to the question I put to you a few minutes ago and relating it to an operation on your system, Mr. Lytle, and a load at the substation at Eltingville

being supplied from the generating plant at Livingston, how will that divide over the two transmission lines that connect the substation and the generating plant?

A. How will the load divide at Eltingville?

Q. Yes.

A. I couldn't tell you exactly, but I think it is fairly equal. I can't tell you exactly.

Q. Why do you say it would be fairly equal?

A. Just because I have made some calculations and tried to get some idea as to how it would be.

Q. And it does divide approximately equally?

A. I think so. We haven't watt meters on those circuits. If we had them I could tell you exactly. But I can't tell you.

Q. If that load were increased, then the load would divide approximately evenly over the two circuits? I mean the increased load would split up and a half would flow over each?

A. At Eltingville?

Q. Yes.

A. The energy would flow in approximately equal amounts. There are two circuits. I am basing that upon some calculations I made sometime ago; and that is what sticks in my mind. It is a thing that can be calculated.

Q. If you had to determine the amount in each circuit, how would you find it?

A. I would first ascertain my impedences of the two circuits around there. The load would probably divide up in inverse proportion to the impedences; that is, the higher the impedences the less it carries.

Q. In other words, the load would divide in inverse ratio to the line impedences?

A. Yes.

Q. As a matter of fact, if the impedences over one was two ohms and it were three ohms over the other line, 2/5 would flow one way and 3/5 would flow the other way?

A. That is right.

Q. For general operating purposes what do you take into consideration in determining the line impedences?

A. That is a physical characteristic of the line which can be found from wire tables.

Q. The size of the wire and the distance are the principal factors?

A. Length of wire and spacing of conductors.

MR. McALLISTER: I have no further cross examination.

EXAMINER SPENCER: Have you any questions, Mr. Paxson?

MR. PAXSON: Yes, I have, Mr. Examiner.

EXAMINER SPENCER: You may proceed.

Redirect Examination

BY MR. PAXSON:

Q. Mr. Lytle, I believe in answering questions on cross examination you stated you placed more reliance upon your own generating capacity than you did on these submarine cables. You have had a number of outages on these submarine cables, haven't you, and failure of service?

A. Yes, sir.

Q. Will you please give us some of these failures, the duration of time, when they occurred, and how many there were, and give us the details of them for a period, if you have it. Let's work backwards. Have you had any failures on these submarine cables in 1938 for the period from January 1, 1938, to March 14, 1938?

A. Yes, sir.

Q. What?

A. The interconnection, both cables were out of service entirely due to failures on one cable when it was neces-

sary to pull up the other cable too, the following times:

1938, February 28th, 6:42 P. M. to 7:7 P. M. Please note that was a heavy load period. It is near the peak.

March first, 10.12 a. m. to 4:55 p. m.—practically all day, or all through the early morning hours and the working day.

March 2nd, 9:45 a. m. to 11:45 a. m., which was about half of the morning.

March 11th, 9:57 a. m. to 10:27 a. m.

March 12th, 9:21 a. m. to 11:52 a. m.

Those are all that I have in 1938.

Q. Now, let's take up 1937 and see whether we had any failures in these submarine cables.

A. Both cables were out of service in 1937, as follows:

November 24th, 11:40 a. m. to 12:11 p. m., which is less than an hour.

November 27th, 1:37 p. m. to 2:10 p. m.

Also in 1937 from May 4th, 7:45 a. m. until May 9th, at 6:20 a. m. That is from the 4th to the 9th, something like five days that both cables were out of service.

Q. But you were able to carry your load there all of the time?

A. Absolutely. I never depended upon the cable to carry our load except in case of break-down.

Q. Proceed, please.

A. That is all I have for 1937.

Now, in 1936, the interconnection was open entirely May 30th, 1:01 p. m., early in the afternoon, to 1:36 p. m.

June first, 2:21 p. m. to 7:30 p. m.

June 2nd, 8:42 p. m. to 9:04 p. m. And that is the time or about the time of the evening peak in June.

Those are all I have.

Q. Mr. Lytle, you stated more reliance you placed upon your own capacity than you did on this Public Service tie-line, I believe.

A. Yes, sir.

Q. Have you any contract which obligates Public Service Electric and Gas Company to supply you energy, even for emergencies?

A. No, sir. It is not my understanding that they have to supply us in emergencies. They will supply us if they have it available.

Q. What is the understanding between the two parties, if there is any.

MR. McALLISTER: Now, Mr. Examiner, I must insist that the contract speaks for itself in that regard.

EXAMINER SPENCER: That is what he is asking about.

MR. McALLISTER: The contract is in the record.

EXAMINER SPENCER: He said he does not have any contract.

MR. McALLISTER: It is in the record.

MR. PAXSON: If the Examiner please, there is a letter form of contract which I believe was entered into because of the circumstances that the Federal Power Commission, under its rules, desired that where there was no written contract that the arrangement be expressed in writing so that the Commission could be informed. That is one of the rules of the Federal Power Commission. The contract is absolutely silent on this point and does not speak for itself; and they have always had an oral arrangement. He is entitled to tell what it is, if he knows.

EXAMINER SPENCER: Is that letter in evidence?

MR. McALLISTER: Yes, Mr. Examiner.

EXAMINER SPENCER: You are asking about an additional, verbal contract?

MR. PAXSON: I am asking about their oral arrangement. It was always an oral arrangement until they filed this little written memorandum.

EXAMINER SPENCER: You may proceed.

THE WITNESS: We understand that the Public Service Electric and Gas Company will give us emergency power if they have it to give us. They understand that we will give them emergency power if we have it available.

BY MR. PAXSON:

Q. But if you do not have it available there is obligation?

A. If we do not have it available there is no obligation. I might cite a little instance I know about.

We had some labor trouble and we didn't know but that there would be some sabotage on our property. During this time I called them and told them that we might need emergency power if some of the lines were cut. They said: "we will do the best we can". But they wouldn't promise anything. It might affect their own labor relations.

During that time one evening, and while our men were out, we were all worried about the plant being shut down all day and they called the system operator, who called me, and wanted to know if we could give them 10,000 emergency. There was a fire near Mechanic Street Substation.

I was sort of puzzled for a few minutes, but I finally told them we would give it to them. But they did not take it. They made some other arrangements.

A lumber yard was burning, or something like that, I believe. It is pretty distinct in my memory because I remember the strike pretty well, and I remember getting the call for emergency at a time when we thought perhaps we

might have to have some emergency power ourselves. That is all true. That happened late in October or early in November of 1935.

Q. I believe you testified with respect to this economy energy that the price would be determined by the cost of generating and the cost of restoring the least efficient unit. Is it or is it not true that the sale of economy energy results in increased generation by the least efficient unit on which the price was based?

A. It would. They would put any load on the last unit.

Q. My question was whether or not it would result in increased generation on this unit on which the price of economy flow was based.

A. It would.

Q. Mr. Lytle, how are the governors on your generators operated? Are they operated by change of 500 k. w.?

A. We operate them on the interconnection on about 500 steps or step-obligation of about 500. The governors may change on smaller loads than that.

Q. Does that have anything to do with the ability to reach what you call a perfect balance on this incidental flow, that is, the condition of the governors? In other words, are they set so that you can get a perfect balance or do they operate only within a certain limit of change?

A. No; we can't get a perfect balance by means of the Governors. We would do it if we could do it.

Q. But that is the method you employ—automatically? That is the method you use to push back the power?

A. That is right.

Q. Is it or is it not true that wherever you have economy flow the purchasing company must have capacity enough in service to carry its own load?

A. Whenever we have economy flow we have to have enough capacity on our lines to carry all of our own load.

Q. Then no emergency could exist if economy flow

were instantly withdrawn, could it? You would not call that an emergency?

A. No; you would not call it an emergency if it were withdrawn. An emergency could come on at that time. It is conceivable.

Q. But the cessation would not constitute an emergency?

A. You would have an additional emergency. The cessation would not constitute an emergency.

MR. PAXSON: That is all.

MR. McALLISTER: I have a few questions.

EXAMINER SPENCER: You may proceed.

Recross Examination

BY MR. McALLISTER:

Q. Mr. Lytle, in response to a question by Mr. Paxson, I understood you to say that when economy flow energy is sold it naturally follows that what energy is necessary for the selling company to generate to make up that which is sold will come from the least efficient generator or the last generator that is on the line. Did you mean to say that or did I misunderstand you?

A. I said they would put it on the last generator on the line, the least efficient generator on the line.

As an operating man I would say that they have a certain load schedule for each line. We will say "A" station is 10,000, "B" station 50,000, and "C" station 60,000. Now, let us say "A" was the least efficient, the last one on. Now, I imagine the way they would handle their loading, if some additional load would be asked of them, would be that they would put it on that machine.

Q. Suppose you were going to get 2,000 k. w.; might it not just be put on the line and let it be split where it will?

A. I don't think they would do it that way.

Q. They could not?

A. It is possible. I don't think they would do it that way. I hardly think it is possible with the large interconnecting system. It would be impractical to do it, I think. That is what I think about it.

Q. If you just put on an extra 2,000 as if it were being passed to you over the interconnection, but instead of being a load coming to you it was an incidental load in a certain area that they were serving 2,000 kilowatts—I mean 2,000 was the load cut in, let us say, on the distribution line; now, how what would it be? How would that divide?

A. They would adjust their last machine to pick up that 2,000.

Q. They would adjust their operation so that they could handle it?

A. Yes.

Q. It might be any one of the generators on the line?

A. It would logically be the last one on the line. They want it for economy purposes, I presume and for capacity purposes, and so on. They would want to start in with one machine up to a certain point with a fixed load, and put on another machine or plant with a fixed load, and so on, and as the load increased, we will say, they would pile it on to that last unit.

Q. The load, when it first came on, would naturally divide itself among the various units?

A. When it first came on.

Q. And if the generators were sufficiently able to handle that without very much effort they might permit it to be carried in that fashion?

A. That would not be the proper operation. As soon as they got that additional load the proper way to operate

the system would be to pile it on the last machine they put on.

Q. Or on some other machine, if they elected to do that?

A. Yes; they could elect to put it on any machine, of course, if the machine would take it. They could elect to do it, but they wouldn't do it.

Q. In any event, you don't mean it would be the energy that would be supplying the load that was cut in on the distribution system before you could take whatever is on the line?

A. We take it off the bus.

Q. And the same way with the customer?

A. We take it off that bus at Mechanic Street, yes, the same as the customer.

Q. Wherever it comes from?

A. Yes.

Q. Now, if there is a failure of the submarine cables connecting you with Mechanic Street at time of the peak load, whether it is daily or any other time, you immediately get your cold reserves spinning, don't you?

A. When there is a failure on peak load?

Q. When there is a failure of the submarine cable during the time of peak load or any load you have, you immediately start your cold reserves spinning?

A. We get up our cold reserve.

Q. And you repair the cables with all the reasonable speed at your disposal, I assume.

A. We don't do it as quickly as we can, no, as a matter of fact. We don't work overtime. Recently we had to watch every penny. We work the working day, and we don't work overtime. We have worked some overtime, but we don't work continuously, that is, bust into it and try to get it done.

Q. You prefer to incur the expense of maintaining the cold reserve rather than maintain what is ordinarily

called reserve on the line. I mean rather than incur this additional expense. You prefer to incur the expense of maintaining the cold reserve rather than incur this additional expense for labor, and so on, that it would be necessary to have if you worked overtime and during the night, and so on?

A. Yes; we have done that. Of course, some of the work on the submarine cable is pretty hard to do at night anyway. In a pinch you might putter away at it. But it is not so much a case of doing the work and not wanting the men to get the work, but it is a case of doing work at night. You have to have barges. They pull up the cable. And work of that kind should be done when there is good light so that the men can see what they are doing, and not get anybody knocked overboard.

Q. Do you maintain that cable or does Public Service Electric and Gas Company?

A. Public Service Electric and Gas Company maintains the cable.

Q. Public Service and Gas Company does all of the repair work on it?

A. Yes, sir.

MR. McALLISTER: That is all the cross examination I have.

Redirect Examination

BY MR. PAXSON:

Q. Mr. Lytle, in case there is economy flow and the load is not put on the machine on which the price of that economy flow was based, what would happen?

A. They would overload and disturb their schedule.

Q. I am speaking about the price. Would there be any adjustment later?

A. Oh, no; not that I know of.

Q. The price is based upon the machine which is supposed to be the one that would be put into operation if the economy flow were not attained?

A. Yes.

Q. The company that then put into operation another generating unit, if it were more efficient, would not be living up to its contract, would it?

A. Will you repeat the question, please?

EXAMINER SPENCER: Will the reporter read the question, please?

(The question was then read by the Reporter.)

BY MR. PAXSON:

Q. What is your answer?

A. No, hardly.

Q. Wouldn't there be some adjustment thereafter, if it were discovered that through error—

A. I imagine there would be; but I don't remember that that has ever occurred.

MR. PAXSON: That is all.

EXAMINER SPENCER: We will adjourn at this time, gentlemen, until ten o'clock tomorrow morning.

(Whereupon, at 4:30 o'clock p. m., Monday, October 3, 1938, an adjournment was taken until Tuesday, October 4, 1938, at 10:00 o'clock a. m.)

Washington, D. C.,
Tuesday, October 4, 1938.

The hearing in the above-entitled matter was resumed, pursuant to adjournment, in Room 1201 Hurley-Wright Building, 1800 Pennsylvania Avenue, N. W., Washington, D. C., at 10:00 o'clock a. m.

Before:
Carroll B. Spencer, Trial Examiner.

Appearances:
As heretofore noted.

PROCEEDINGS

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

You may call your next witness, Mr. Paxson.

MR. McALLISTER: Mr. Examiner, I had a few questions I wanted to ask Mr. Lytle. When we adjourned Mr. Paxson was questioning Mr. Lytle. In the course of that questioning I understood we adjourned.

EXAMINER SPENCER: We adjourned after the examination was completed, as I understood it.

MR. McALLISTER: As a matter of fact, Mr. Examiner, I understood the Examiner to say "We will adjourn until ten o'clock tomorrow morning"; and there was no opportunity given to me to ask further questions.

EXAMINER SPENCER: I thought I asked you if you had finished and that you said there was no further questioning.

MR. PAXSON: After all, I had asked just one question. We had been through with his cross-examination before. We have had direct and cross and redirect and recross. Now, how many more recross-examinations will there be?

MR. McALLISTER: Let's look at the record and see. You asked a number of questions. I have the record right before me here.

EXAMINER SPENCER: The record shows that the witness was on redirect examination. The statement I had reference to is on page 579. And thereafter the witness was taken on redirect and Mr. McAllister had stated "This is all the cross-examination I have", on the page to which I referred.

MR. McALLISTER: Of course, that related to what had transpired before.

MR. PAXSON: Is this with reference to that one question?

EXAMINER SPENCER: He is cross-examining on the facts brought out on the redirect examination.

MR. McALLISTER: On any matter to which it relates.

MR. PAXSON: It covered a wide territory yesterday.

EXAMINER SPENCER: You may proceed, Mr. McAllister.

JAMES H. LYTLE,

resumed the witness stand and, having been previously sworn, testified on behalf of Respondent as follows:

Redirect [Cross] Examination

BY MR. McALLISTER:

Q. I would like to straighten out these last few questions on redirect examination.

Economy flow energy between Staten Island Edison Corporation and Public Service Electric and Gas Company, Mr. Lytle, is a matter that is controlled by the contract between the two companies? Isn't that true?

A. I don't understand it that way. I believe it is controlled by a verbal agreement. I think it is mentioned

in the contract. The way we operate, it is controlled by verbal agreement. We fix the rates and negotiate with them and that sort of thing.

Q. Mr. Lytle; I could not hear a word you said.

EXAMINER SPENCER: I could hear neither the question nor the answer.

Will the Reporter read the question and answer, please?

(The question and answer were then read by the Reporter.)

BY MR. McALLISTER:

Q. It was that verbal contract, or the interpretation of that verbal contract that induced you in response to the last few questions of Mr. Paxson to say that the price is supposed to be determined upon the basis of the last machine that goes on the line or the least efficient machine operating on the line, or something like that? That matter of verbal understanding is the matter upon which you determine the price?

A. Yes; it is a verbal understanding upon the price of the economy flow.

Q. And is it the same interpretation of the contract that led you to say this always assumed that this energy was coming from Public Service Electric and Gas Company?

A. I did not say that thinking of the contract particularly. I said that because in our negotiations or in our talks with them, that is, our verbal negotiations, it gave me that impression always that it came from them. Nothing in the contract, I believe, gave me an impression on that matter at all.

Q. Why would that question arise as to where the energy actually came from?

A. It never arose, sir.

Q. You say that was always your understanding?

A. It was. We talked to them and we were getting power from them. Nobody ever questioned it any more than that, so far as I remember.

Q. On page 465 you say: "They led us to believe that it was power generated by Public Service Electric and Gas Company".

Now, what did they say that led you to believe that?

A. All of our conversation was that we were buying power from them and I didn't think anything more about it. I didn't go into any negotiations with them in any way in connection with any other interconnection that they have or that they had. Our dealings were simply between Staten Island Edison Corporation and Public Service Electric and Gas Company.

Q. Then is it proper to say that you were not concerned with the source of the energy that came to you from Public Service Electric and Gas Company?

A. I did not give it any thought. I did not know. As a matter of fact, I don't know today all of the interconnections they may have. I just don't know. We were dealing with them, and I always considered it was power that they generated. Perhaps I am wrong, but that is what was in my mind. We did not discuss it with them.

Q. Where is their nearest generating station in relation to the interconnection that you have with them?

A. They have three large stations. I don't know which one is the nearest. They are Essex, Kearney and Marion. And I don't know which one is the nearest.

Q. They are pretty much in the same general location, and there wouldn't be much difference in the distance from any one of them as compared with the other?

A. I think that is right.

Q. There might have been a few miles, but they are not very far?

A. No.

Q. What is the line distance from Mechanic Street to those generating stations?

A. I couldn't tell you that exactly. I can only give you a rough guess, which would be 10 or 12 miles. That is something I do not have in mind.

Q. You don't know as to that?

A. No. I would make an estimate that it is 10 or 12 miles, or something of the kind.

Q. Did you say yesterday the price of that economy flow is determined monthly, or the settlement is made monthly? We will put it that way.

A. The settlement is made monthly.

Q. And if there is any variation or change in the price it would have to be made monthly or a continuation of the price before?

A. Monthly has been the rule. It is possible that it may vary during the month.

Q. Or from day to day?

A. It could vary from day to day so far as our verbal agreements with them go.

Q. How about the incidental energy? How is the price on the incidental energy fixed?

A. We have tried to arrive at fairly long intervals—not intervals but several months—on the average incidental flow of each station and get an average from that. We have never considered the incidental flow as highly important because the understanding was that we would keep it to a minimum and send some of it back.

Q. What has been your price?

MR. PAXSON: Let him finish, please?
Go ahead, Mr. Lytle.

THE WITNESS: So we never considered that there would be any great money difference.

BY MR. McALLISTER:

Q. What was your average price on the economy flow during 1937?

A. During 1937?

Q. Yes.

A. On a kilowatt hour basis?

Q. Yes.

A. I do not have the exact figures with me, but it would run in the neighborhood of 4.5 mills economy flow, I believe.

Now, wait a minute. In 1937?

Q. Yes.

A. In 1937 we took it only two days, I believe, in the whole year of 1937.

Q. What was the price?

A. That was economy flow.

Q. What was the price?

A. I would say roughly 4.5 mills.

Q. You took considerable quantities in 1936?

A. Yes.

Q. What was the price during that time?

A. In 1936?

Q. Yes.

A. I do not have those figures. It was in the neighborhood of 4 mills or 4.5 mills. I was trying to think back what the coal market was in 1936, and I just can't remember it. But it was something on that order. That is on the kilowatt hour basis. But I may be off on that.

Q. Don't you determine your costs on economy flow and determine their costs and add them together and divide them by two?

A. Yes.

Q. Do you mean to say your cost of generation would be as high as 4.5 mills?

A. Yes. May I explain?

Q. Yes.

A. Perhaps I did not make it clear yesterday. We took the increment costs and added them and divided by two. If we save running a machine and on account of that we are enabled to operate with one less machine than we would otherwise, we add into that the no load cost of running that one machine and split the difference, which makes that economy rate higher. It is higher than the actual increment rate because you have the machine saving there.

Q. And you take that into consideration in determining the price for the energy?

A. Oh yes; if we save a machine that is part of the saving due to the economy flow operation.

Q. To that extent the usual method of determining incremental for each company and adding them together and dividing by two, you would have to modify that ordinary price by also taking into consideration then the other saving to you due to the fact you are not operating the machine?

A. Yes, sir. That is only fair. That is a part of our agreement. We give them half of that saving.

Q. You named the substations on your line yesterday?

A. Yes.

Q. And you indicated on the record that out of each of those substations or certain of them you had low voltage transmission lines which served the distribution area. Do you have those distribution lines from each of the stations? I think you answered yesterday in connection with the 6,900 voltage lines and named the substations from which those lines emanate.

MR. PAXSON: Just a moment, please. As I understand his testimony, Mr. McAllister, Mr. Lytle carefully stated that there were no transmission lines but they were all distribution. So why say that he said transmission lines?

EXAMINER SPENCER: The witness will recall his testimony.

MR. PAXSON: I wanted the witness to be aware of what his testimony was in view of his prior testimony.

THE WITNESS: As I remember it, I stated that we distributed load from various substations over a distribution line. I did not say we had transmission lines any place or any time yesterday. Transmission lines are not in it now so far as I am concerned. We do distribute loads from various substations; yes, sir.

BY MR. McALLISTER:

Q. You named various ones from the Atlantic substation. What distribution lines do you have that emanate from that substation?

A. What distribution lines?

Q. Low voltage lines, less than 33,000.

A. Less than 33,000?

Q. Yes.

A. We have 6,900 volt lines and 2,300 volt lines from the Atlantic substation other than the 33,000 volt lines.

Q. Where does that 6,900 voltage line lead to?

A. Where does it lead? Well, it goes west and north ultimately to Eltingville substation. It can also be connected by switches with Livingston and also Arlington. I think that covers it.

Q. What is the purpose of that line?

A. The purpose of that line is to serve a number of our customers in that section. It can also serve just a little bit of lighting load also, as I remember it.

Q. Does it serve commercial customers, manufacturing and the like?

A. Yes.

Q. Is that what you have in mind?

A. Yes.

Q. And it also carries some domestic load?

A. Not very much. There is some domestic load in there that is sometimes operated from that line.

Q. When it leaves the substation, Mr. Lytle, just describe it, please. Does energy from the 33,000 volt line at the substation pass through a bank of transformers and come down the low side at 6,900?

A. At that substation it comes out at 2,300. There is a bank of transformers at that substation transforming from 33,000 to 2,300. There is a second bank that transforms from 2,300 to 6,900. It sounds sort of complicated, and it is something like "Topsy" it grew up that way.

Q. That is the way you operate at that Atlantic substation?

A. Yes.

Q. How about the 2,300 volt line? What does that line serve?

A. It serves us general light and power load in the vicinity of Atlantic substation.

Q. Generally speaking, Mr. Lytle, those are the only two low voltage distribution lines that lead off from the Atlantic substation?

A. They are not the only circuits there of the two voltage classifications. There are three 2,300 volt circuits there, I think it is, one of which feeds street lights, and there are three 6,900 volt circuits out of there.

Q. But the function of the different classifications is about as you have described it?

A. To the best of my knowledge.

Q. At the other substations do you have from each of those substations low voltage lines which lead off to serve a distribution area?

A. Not at all of them.

Q. Will you please name the ones where that same operating conditions exist that you have described for Atlantic substation? I put it that way so that we will not have to go through the questioning. You know your substations. Now, name the substations where the operation is substantially similar to that that you have described at Atlantic station?

A. At Eltingville there are distribution lines running out of there of 6,900 and 2,300.

At Arlington it is the same.

At Livingston it is the same.

At St. George it is only 2,300 and no 6,900.

At Clifton it is only 2,300.

At Grant City it is only 2,300.

At South Beach no 2,300 or 6,900.

At Oldtown, no 6,900 or 2,300.

Q. What is the function of those two substations?

A. Railway.

Q. What is that?

A. Railway; Staten Island Rapid Transit Railway.

Q. Will you name the substations from which you have 33,000 volt connections to the Staten Island?

A. We have 33,000 volt connections to the Staten Island Rapid Transit Railway at Arlington, St. George, South Beach, Oldtown, Eltingville and Atlantic.

Q. Does the Staten Island Rapid Transit Company operate directly on the current that you supply to them or does it pass through transformers, or is it otherwise changed at any place before it is used by the Staten Island Rapid Transit Company?

A. The Stater Island Rapid Transit buys from us at 33,000 volts, transforms it and converts it to D. C.; that is, most of it. They use a little A. C. Most of it is direct to D. C. for railway operations. It is 550 volts or 600 volts or something on that order, I think. It varies.

Q. Where are those transformers located that they operate and utilize in accomplishing that change, with relation to your substation?

A. At the substation.

Q. At the substation?

A. On the substation property.

Q. For all intents and purposes, Mr. Lytle, if the ownership were not known it would appear to be a part of your property?

MR. PAXSON: May I hear that question again, please?

(The question was then read by the Reporter.)

THE WITNESS: It would appear, I suppose; yes.

BY MR. McALLISTER;

Q. I mean directly connected?

A. Yes.

Q. And you might say an integral part of the layout. Isn't that correct?

A. It would appear to be the same substation; yes.

Q. But you meter it to them at 33,000 volts?

A. Yes.

Q. So that they would stand whatever loss might occur in the change to the direct current which they use?

A. Yes, sir.

Q. The contract which you have with Public Service Electric and Gas Company places no limitation upon you as to the amount of emergency energy that you can receive from Public Service Electric and Gas Company, does it?

A. The contract does not.

Q. What would limit the amount which you could receive from them at any time?

A. What they could give us at any particular time.

Q. How about the capacity of the connection?

A. Naturally it is limited by the capacity of the connection.

Q. That is the first and primary limitation?

A. I thought that was so obvious that I did not mention it. But aside from the capacity of the connection, they can limit us.

Q. Do you know what their spinning reserve is on the line at all times?

A. I did have that figure in mind, roughly, but I don't know what it is now, except that it is considerably more than the capacity of the interconnection. That is my understanding.

Q. If it were 44,000 k. w., that would be in excess of the capacity of the interconnection, wouldn't it?

A. If it were 44,000?

Q. Yes.

A. Yes; 44,000 is in excess of 25,000.

Q. 25,000 is the estimated capacity of the interconnection?

A. Yes.

Q. The two circuits that you maintain from Mechanic Street to your Atlantic substation?

A. It is 25,000.

MR. McALLISTER: I have no further questions.

EXAMINER SPENCER: Do you wish to ask any more questions, Mr. Paxson?

MR. PAXSON: I believe I have only one question, which was made necessary by the cross examination.

EXAMINER SPENCER: You may proceed.

Redirect Examination

BY MR. PAXSON:

Q. I believe you stated in your answers to Mr. McAllister that settlement may be made monthly for this economy flow energy. Is that right?

A. I did.

Q. But you are not in any way trying to indicate that the price of economy flow is not established prior to the taking of this economy energy?

A. No, sir.

Q. In other words, you testified previously, and that testimony still holds, that it is a day to day transaction and day to day negotiation in fixing the price?

A. That is right.

MR. PAXSON: That is all.

Recross Examination

BY MR. McALLISTER:

Q. Mr. Lytle, didn't you say to me that you tried to project it over a longer period? I thought you told me that just this morning.

A. We can and may project it a day or two or we can do it every day.

Q. Or for longer periods?

A. We do not do it for a longer period than a month.

MR. McALLISTER: That is all.

BY MR. PAXSON:

Q. Mr. Lytle, what do you mean by projecting it over? I do not understand it myself.

A. What I meant was this, that we can arrange it in this way: we can arrange a price today and the price is good, and we say we will take it for several days with the

understanding that if there is any need to change or if there is any change in the factors making up the cost entering into it, the price can be changed. It is a very flexible thing, and it can be changed at any time, just the same as it can be stopped at any time.

MR. PAXSON: That is all.

EXAMINER SPENCER: Are there any further questions?

MR. McALLISTER: I have no further questions.

EXAMINER SPENCER: Then, the witness may be excused.

(Witness excused.)

WILLIAM F. MORRIS

was called as a witness for and on behalf of Respondent and, having been first duly sworn, testified as follows:

Direct Examination

BY MR. WESTON:

Q. Will you please state your name?

A. William F. Morris.

Q. And where do you reside?

A. 65 Morton Street, New York City.

Q. Will you state in brief your education and accounting experience?

A. I hold the degree of Bachelor of Science in Business Administration, majoring in accounting, from Fordham University. From 1918 to 1923 I was with Morris and Company in an accounting capacity. For about ten months after that I was in the public accounting practice on my own account. From 1924 I have been in the accounting and financial end of the electric and gas industry. I am presently employed by Public Utility Investing Corporation.

Q. Mr. Morris, have you made a study from an accounting standpoint of the power transactions between Staten Island Edison Corporation and Public Service Electric and Gas Company?

A. I have.

Q. What records and other data did you examine in connection with that investigation?

A. I examined the power station logs at Livingston, the system operator's logs and the records in the general accounting office of Staten Island Edison Corporation. All of those papers that I have examined are the records of Staten Island Edison Corporation.

Q. As a result of that study have you made up any summary?

A. Yes, sir.

Q. The facts that you ascertained as to the operation of the interconnection which has been described here between the two companies?

A. Transactions between Staten Island Edison Corporation and Public Service Electric and Gas Company over that interconnection between Mechanic Street and Atlantic.

Q. I show you this statement entitled "Staten Island Edison Corporation — Monthly summary of purchases of electric energy (other than incidental flow) from Public Service Electric and Gas Company, August 26, 1935 to March 14, 1938", and I will ask you if this is the statement which you prepared, and whether the facts thereon are correct?

A. Yes, sir. I prepared that statement, and the facts stated thereon are correct.

MR. WESTON: Mr. Examiner, I offer this statement in evidence as Respondent's Exhibit No. 4.

EXAMINER SPENCER: Is there any objection?

MR. McALLISTER: Just looking at it briefly, Mr. Examiner, I note that there is no information supplied for the period subsequent to March 14, 1938. If the information is to be accepted in the record for any period I will ask that it be made sufficiently complete for the year 1938 by continuing it subsequent to that date so that a reasonable picture of the condition may be ascertained from an examination of the statement. In other words, this is a factual matter; and while that date may have some significance in relation to some transaction, the factual showing is not a matter that begins and ends on the particular date. I would ask for the same information in 1935 if it were not far removed. We have 1936 and 1937 intervening, so I do not care about that. But for 1938 it is a continuation of the operation between these two companies immediately at the time that it may be under consideration. What transpires after that date is of primary importance.

MR. WESTON: Mr. Examiner, that is only a matter of argument. If he wants to bring out the facts after that date, let him do so. We are not building up Mr. McAllister's case. We have taken two points of time. We are definitely limited by some two points of time in describing any condition or state of facts. Now, we have taken this point as ending at March 14th. If he wants to go into it, let him bring it out himself.

EXAMINER SPENCER: Let the statement be admitted as Respondent's Exhibit No. 4.

The same information from March 14, 1938 to September 27th will be furnished upon a verified statement by the witness.

MR. WESTON: As a part of whose case?

EXAMINER SPENCER: As a part of the record,

Mr. Morris, can you furnish that for us?

THE WITNESS: I would prefer that Mr. Paxson agree to that, because I am working under Mr. Paxson's directions. If he tells me to go ahead and do it, I will do it. He is the boss.

EXAMINER SPENCER: It will be agreed, will it not, Mr. Paxson, that, so far as you are concerned, the information may be furnished over your objection?

MR. PAXSON: I have the same objection to this request that I had to the request made yesterday. I think the proper method for Mr. McAllister to pursue is to cross examine Mr. Morris as to whether or not he has those facts and then ask him for them.

Then, over my objection, if he is requested to supply them, we will supply them on the same basis we agreed to supply the other data which were requested.

EXAMINER SPENCER: That is satisfactory. That will get the data in the record.

MR. PAXSON: The period subsequent to 1938 has nothing to do with explaining this exhibit. It is a perfectly proper exhibit and, of course, it has been admitted.

EXAMINER SPENCER: How soon can you supply that, Mr. Morris?

THE WITNESS: I would like two weeks on it, Mr. Examiner—not that it will require two weeks, but I would like a little holiday. I have not had a vacation for a long time, and I would like to knock off for a couple of days.

What is today?

EXAMINER SPENCER: It is the 4th.

THE WITNESS: I had not planned to get back to New York until after Columbus Day. That is October 12th. I can get it up about the 19th or 20th, that is, if Mr. Paxson tells me to do it.

MR. McALLISTER: How about the Examiner requesting it?

THE WITNESS: Mr. Paxson is Counsel for the Respondent, and I am working for Mr. Paxson. He can fight it out with the Examiner.

EXAMINER SPENCER: I think it is perfectly understood, Mr. Morris, Mr. Paxson agrees that information may be furnished in the manner he indicated. The record will show his objection. It will not be introduced as a part of his exhibit or as a part of his case.

Let the record show that the witness is to furnish this information on or before October 21st.

With that understanding you may proceed to examine him with respect to this exhibit, and, of course, the cross examination will follow that.

Respondent's Exhibit No. 4 is admitted.

(The document above referred to was received in evidence and marked Respondent's Exhibit No. 4.)

BY MR. WESTON:

Q. Mr. Morris, will you please explain in brief the intent and purpose of this exhibit and what it shows?

A. It is a monthly summary of the transactions between Staten Island Edison Corporation and Public Service Electric and Gas Company covering emergency and economy flow.

There are a number of gaps in this statement where there is no month shown, but for those apparent gaps there were no such transactions.

In respect of each month shown on this statement or a portion of a month it shows the aggregate number of transactions, the total elapsed time during which either economy flow or emergency transactions took place during the month, and then it shows the k. w. h. flow segregated as between economy flow and emergency. It also shows the dollar cost of the economy flow, and in relation to the dollar cost of the emergency energy it shows in one column the energy and demand charge covering that cost, together with the annual adjustment which is provided for, as I understand it, under the contract each year.

Then, for each year or portion of a year shown here there is a summation of the data that have heretofore been mentioned.

Then there is the segregation showing the aggregate number of transactions of economy flow for the year or portion of the year shown.

Then it shows the average elapsed time of such flow, and then in relation to the emergency flow there is an aggregate number of transactions for the year or portion of the year, and then the average elapsed time.

Finally, the statement goes on to show—I will summarize this, if it is agreeable to you, Mr. Weston—that for the period August 26, 1935 to December 31, 1935, there were ten economy flow transactions, averaging three hours and twenty-seven minutes apiece, and there was one emergency transaction which lasted for one minute.

In the full year 1937 there were 37 economy flow transactions averaging five hours and twenty-eight minutes apiece; there were 6 emergency transactions averaging six minutes apiece.

For the entire year 1937 there were two economy flow transactions, averaging eight hours and fifty-two minutes apiece, and there were three emergency transactions averaging one hour and twenty-three minutes apiece.

For the period January 1, 1938 to March 14, 1938 there was one emergency transaction which lasted for two hours and thirty-five minutes.

Then the aggregate is shown. For the period August 26, 1935 to March 14, 1938 there was an aggregate of 60 transactions involving emergency and economy flow. The aggregate elapsed time for the 60 transactions was ten days, twenty-one hours, forty-five minutes or an average of four hours and twenty-two minutes apiece.

The number of days between August 26th, 1935 and March 14, 1938, was 930. During that period the total elapsed time of emergency and economy flow transactions running from Public Service Electric and Gas Company to Staten Island Edison Corporation amounted to ten days, twenty-one hours, forty-five minutes. That would be about 1.2 per cent of the time, roughly.

The money involved in those transactions shows that during the period—I guess we can take the k. w. h. first. During the period August 26, 1935 to December 31, 1935, Staten Island Edison Corporation took 51,800 kilowatt hours as economy flow, and that cost them $231.44.

The emergency was so short during that period that there was no kilowatt hour flow billed; but they were charged $14.70 as a demand charge.

In November 1935, the Public Service Electric and Gas Company billed the Staten Island Edison Corporation $250.41 for the annual adjustment on their emergency charge in accordance with the terms of the contract, and that adjustment covered the twelve months ended November 30, 1935.

But I did not make any attempt to segregate it as between the periods, and I put in the whole sum. But we must understand that $250.41 covered from November, 1934 to November, 1935.

So with that explanation the aggregate amount of money that the Staten Island Edison Corporation paid to Public Service Electric and Gas Company for emergency and economy flow energy from August 26, 1935 to December 31, 1935 was $496.55.

Now, for the entire year 1936 Staten Island Edison Corporation bought 329,600 kilowatt hours of economy flow energy for which they paid $1,321.96.

They bought 3,725 kilowatt hours of emergency energy on which the demand charge and energy charge totaled $1,024.79.

Now, that annual adjustment charge of which I spoke some few minutes ago from November 1935 to November 1936 amounted to $144.66.

So for the year 1936 Staten Island Edison Corporation paid to Public Service Electric and Gas Company for economy energy, for emergency energy, and for the annual adjustment on the emergency energy flow a total of $2,491.41.

For the calendar year 1937 Staten Island Edison Corporation bought 13,600 kilowatt hours of economy flow energy for which they paid $89.63. They bought 3400 kilowatt hours of emergency energy for which the energy and demand charge amounted to $173.90.

The annual adjustment charge under the terms of the contract for emergency flow was $16.84.

So for the year 1937 Staten Island Edison Corporation paid to Public Service Electric and Gas Company for emergency and economy flow a total of $280.37.

During the period January 1, 1938 to March 14, 1938—and these dates are inclusive—Staten Island Edison Corporation took 1,000 kilowatt hours of energy on emergency flow for which they paid $48.00. Then there is a total for the entire period.

Q. With respect to the column entitled "duration", you do not mean to imply that the energy which is shown

was necessarily flowing for the entire period listed under that column for any one transaction, do you? Those are the outside limits? Is that not correct?

A. As I understand it, these are the outside limits for any particular flow. It does not mean that there was a continuous flow during the period, or it might. It all depends. The records do not disclose that there was a continuity of flow or lack of continuity of flow. So, to be on the safe side, I took the outside limits.

Q. Purely from a dollars and cents standpoint, Mr. Morris, leaving out any indefinite and intangible benefits to Staten Island from these purchases, would you say that the total of these transactions for the entire period for any given year in the period or for any given month in the period, from a dollars and cents standpoint are of any significance to Staten Island Edison Corporation?

MR. McALLISTER: I object to that as a conclusion that is not within the general knowledge of this witness as he has qualified himself in this case.

MR. WESTON: Let me qualify him first.

BY MR. WESTON:

Q. Mr. Morris, do you know the total operating revenues of Staten Island Edison Corporation and the total expenses of Staten Island Edison Corporation in connection with the generation of their electricity, approximately and in general?

MR. McALLISTER: I don't think that is qualifying the witness.

EXAMINER SPENCER: He has not finished yet. Let's see what he is going to ask him and see if he is going to qualify him.

(Continued on page 473, Volume II)

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Vol. II

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1942

No. 299

JERSEY CENTRAL POWER & LIGHT COMPANY,
PETITIONER,

vs.

FEDERAL POWER COMMISSION

No. 329

NEW JERSEY POWER & LIGHT COMPANY,
PETITIONER,

vs.

FEDERAL POWER COMMISSION

ON WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

PETITIONS FOR CERTIORARI FILED {AUGUST 13, 1942.
AUGUST 22, 1942.

CERTIORARI GRANTED OCTOBER 12, 1942.

TRANSCRIPT OF RECORD
VOLUME II.

IN THE

United States Circuit Court of Appeals

For the Third Circuit

No. 7256 October Term, 1939

JERSEY CENTRAL POWER & LIGHT COMPANY

Petitioner

v.

FEDERAL POWER COMMISSION

Respondent

No. 7257 October Term, 1939

NEW JERSEY POWER & LIGHT COMPANY

Petitioner

v.

FEDERAL POWER COMMISSION

Respondent

PETITIONS FOR REVIEW FROM AN ORDER OF THE FEDERAL POWER COMMISSION

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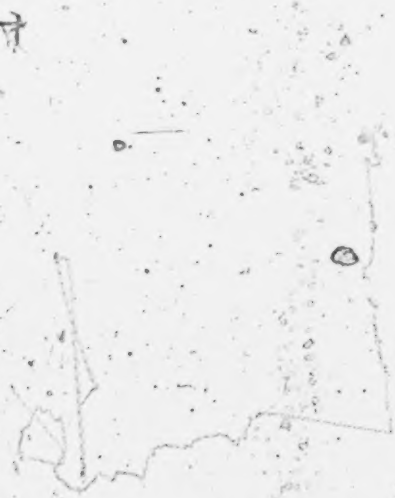

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BY MR. WESTON:

Q. Mr. Morris, do you know how much they have to pay for their operating expenses, within a reasonable degree of certainty or accuracy?

A. Their revenue runs around four million dollars a year. As I recall it, their operating ratio is—

MR. McALLISTER: Mr. Examiner, that is not qualification. He is now going back on direct examination. It depends not upon an over-all estimate or idea of what their total revenue would be. If this man is going to state what is the operating significance of these figures that have been read into the record it must be based upon an intimate knowledge of the operation.

MR. WESTON: If there is something wrong with his qualification or his statement, let him bring it out when his turn comes.

MR. McALLISTER: But I am going to object to the question now, Mr. Examiner, before it is answered, rather than afterwards, and rather than trying to break it down, and I ask that it be stricken physically from the record.

EXAMINER SPENCER: It will not have to be stricken physically from the record. It is a question of whether or not he can qualify as an expert on the question. He is not asking the direct question now; he is trying to qualify the witness.

BY MR. WESTON:

Q. Mr. Morris, you stated the operating revenues approximated four million dollars?

A. That is correct.

Q. Do you know within a reasonable degree of accuracy in round figures their total operating expenses?

A. Their operating ratio is about 70 per cent on Staten Island. So that would make their operating expenses run around $2,800,000.

MR. McALLISTER: I object. That is not qualification. It is not qualifying the witness.

EXAMINER SPENCER: Let him finish, Mr. McAllister. I will determine whether or not he is qualified.

BY MR. WESTON:

Q. In general, Mr. Morris, the picture of the size of Staten Island Edison Corporation on a dollar and cents basis, are the total of dollar transactions or the transactions in any given month—

EXAMINER SPENCER: Just a moment, please. I think you will have to lay your foundation to show how he is qualified. He has just made a statement that he generally knows the operating expenses and the revenues. That does not qualify him to answer that question unless he has knowledge based upon his examination of records or some familiarity with the operation of the company.

MR. McALLISTER: Mr. Examiner if a man goes in and runs over the books and gets a general idea of the operations, that does not qualify him. I believe you said "generally".

EXAMINER SPENCER: I said that would not qualify him. If you would pay more attention to what I say, perhaps we could make better progress. I say he has to have knowledge of it. If he is not familiar with the books he is not qualified. And that is what I will rule.

BY MR. WESTON:

Q. You stated you examined the log sheets and various other books and records of the Staten Island Edison Corporation. For the period in question have you examined the books and records as to the operations of the Staten Island Edison Corporation?

A. I have been over their monthly reports—I forget the last one I looked at—from which I just gave you the information. But I did not make any notes on them. I have been over their reports and I have seen their monthly reports. That gives you a good idea. Those monthly reports are taken from books and records by competent people, and they are prepared and submitted.

As I recall, the operating revenues were in excess of four million dollars. It may have been $4,085,000. It does not stick in my mind. But four million dollars is about the figure; and the operating ratio is about 70 per cent.

EXAMINER SPENCER: Let me ask you this question. What information you have as to operating revenues and expenses and the methods of operating was obtained in the course of your procuring the data from which this sheet was made?

THE WITNESS: Yes, sir. But this sheet was made up and checked against the log sheets.

EXAMINER SPENCER: I understand that.

THE WITNESS: The log sheets are kept outside the general office. If I might explain for just a moment, these log sheets are a narration of the meter readings, and all that sort of stuff, and letters and papers like that that they keep in the power station or in the system operator's office; and from there they advise the general accounting office as to what they must expect as a bill from the Public Service Electric and Gas Company and what they must bill the Public Service Electric and Gas Company in any given period, which is usually a month.

My information as to the revenues of Staten Island Edison Corporation and the approximate expenses were obtained from the report that the Chief

Accountant of the Staten Island Company is responsible for. He prepares those every month and he shows the revenues and expenses and all of the details. And I have been over those reports. That is the source of my information as to the revenue obtained. And I feel that they are thoroughly dependable.

EXAMINER SPENCER: Then your familiarity with the company in different aspects is confined to this examination of their records?

THE WITNESS: I have known the company for a long time; but this particular figure that I am giving you of four million dollars I looked at in connection with the preparation of these data that I am now putting in as an exhibit.

MR. WESTON: Mr. Examiner, I submit that qualifies him just as much as Mr. Grimsley was qualified to express a lot of conclusions that he read into the record that he secured from secondary information and reports to the Federal Power Commission, or otherwise. I could point out at least ten instances in which Mr. Grimsley was not qualified any more than Mr. Morris is qualified.

MR. McALLISTER: I object to the statement as to "secondary information." They are sworn reports filed with the Federal Power Commission.

MR. WESTON: Filed in connection with this proceeding, filed by the witness testifying in this proceeding?

MR. McALLISTER: No.

EXAMINER SPENCER: Have you any questions to ask on his qualifications, Mr. McAllister?

MR. McALLISTER: No, Mr. Examiner, I have not, because very definitely he is not qualified; in my opinion.

EXAMINER SPENCER: You may have the opportunity of showing that he is not qualified by your questioning.

Cross Examination

BY MR. McALLISTER:

Q. Mr. Morris, are you regularly employed and do you perform service for the Staten Island Edison Corporation in connection with the audit, payment and recording the operating revenues and expenses?

A. I want to get your question straight, if you please, sir. Do you mean am I in the employ of Staten Island Edison Corporation as an accountant or bookkeeper who works for nobody else but Staten Island?

Q. That is not the force of the question, because you might be employed by somebody else and you might be put in there and do all of the accounting work for them, so that you would have an intimate knowledge of what transpired from day to day and their business transactions?

A. I am not employed by Staten Island Edison Corporation to keep their books and know of their day to day transactions. I am not in the employ of Staten Island Edison Corporation.

Q. You would not be in position to determine from what transpired with respect to an item put in their books whether it was right or wrong?

A. I want to get the force of your question, Mr. McAllister. I want to be perfectly frank and understand just what you mean. I am not at all times and I am not telling you I am in there as an accountant or bookkeeper, or what-

ever you call him. The Staten Island Edison Corporation puts them on the books of Staten Island Edison Corporation. But I am not that fellow.

Q. Well, let's go one step further. Eliminate as to the relationship with the company, eliminate the relationship of the company by whom you are employed and what their relationship is with Staten Island, and forgetting for the time being some of those things; you are in the same position as any other third party who would go in there and examine those books and assume they are correct and from a cursory examination come out with certain details for which you were looking. Isn't that true?

A. Perhaps I can state my position so that all of us can understand it.

Q. Just answer the question, please.

MR. WESTON: I object to the "cursory" in his characterization.

THE WITNESS: I will not say that I made a cursory examination of these facts that are here. That was a very careful examination.

BY MR. McALLISTER:

Q. Now, with respect to the other matters of their general accounting.

A. As I said before for the record—and perhaps this will clear up the matter—in connection with this examination I looked at their operating reports, the report that the accountant or bookkeeper, or call him what you will, prepares each month. I did not go in and check to see if the total operating revenue was $4,085,000.21; I didn't go in to see whether it amounted to that. I took that report which was prepared long in advance, and it was used for the information of the offices of the company: I took that report and looked at it. That is my only source. It is not an estimate. I am trying to recall what it is, but it is around four million dollars.

I hope I have made myself clear. That is my information. I am not the accountant who records the books or supervises the ledger clerks putting them on the books. All I did was to go in and make an examination with respect to these transactions, and in the course of it I felt as an accountant I might look at something else. When I go in to make an examination I don't just confine myself to the very inside limits. I look at some things that may be related to it. I looked at those particular reports merely to get an idea as to what relation they had generally. I made no notes. Undoubtedly you have the figures in some of your sworn statements and can get the exact figure. I made a rough examination.

This is a detailed examination of those that I made. I looked at these other reports the same as any other accountant would who was endeavoring to make a comprehensive examination, but not too comprehensive an examination, as to what was doing. I did not feel I had to go ahead and make a general audit of the books of the Staten Island. I never did that. But those reports were prepared long before I got there. They were prepared by competent men whom I know, and I feel that they are correct. Now, that is all I can tell you about it.

I hope I have made myself clear, because I am endeavoring to answer the question to the best of my ability.

Q. Now, will you just answer these questions specifically, Mr. Morris?

A. Yes.

Q. In other words, you have not made an audit of the books of the Company?

A. No.

Q. Either receipts or disbursements?

A. No.

Q. Mr. Morris, you would not be in a position to verify a statement as to their accuracy, completeness or general correctness?

A. I would be in a position to do it if I examined the books.

Q. But I am saying, Mr. Morris, upon the basis of what you have done, would you?

A. No, sir.

EXAMINER SPENCER: Have you any further questions of the witness?

MR. McALLISTER: Will the Examiner indulge me for just a minute?

EXAMINER SPENCER: Yes, Mr. McAllister.

MR. McALLISTER: I would like to say something off the record, Mr. Examiner.

EXAMINER SPENCER: Off the record.

(Thereupon, an informal discussion occurred which the Reporter was directed not to record, after which the following occurred.)

EXAMINER SPENCER: All right, proceed.

BY MR. WESTON:

Q. Now, from your general knowledge of Staten Island Edison Corporation's revenues and disbursements and so on, would you say that any of the dollar volume of their transactions with Public Service Electric and Gas Company during any given period of time, monthly, yearly or otherwise, has been of any dollars and cents significance to Staten Island Edison Corporation on a proportionate basis?

A. I don't think you could find that in there.

BY EXAMINER SPENCER:

Q. What is the answer? I don't think you could find that in there?

A. Yes, in the expenses, if you attempted to relate them because, you take for the year 1937, on $4,000,000 revenue when you try to relate $280.37, which is the total

amount of money they paid for emergency and economy flow, you would get into such a small figure it would be probably 5/1000 of 1 per cent. It is so small you can't see it. It would not even pay a decent bookkeeper for a year, for a month rather.

BY MR. WESTON:

Q. Now, Mr. Morris, in connection with this case, have you prepared another statement entitled Staten Island Edison Corporation, summary of transactions with Public Service Electric and Gas Company, August 26, 1935, to March 14, 1938?

A. Yes.

Q. I hand you this document and ask you if that is the document you prepared, and whether the facts therein contained are correct as you ascertained them?

A. Yes, sir.

MR. WESTON: I offer this as Respondent's Exhibit No. 5.

EXAMINER SPENCER: All right, let this be received as Respondent's Exhibit No. 5.

MR. McALLISTER: May I look at it before it is received in evidence?

EXAMINER SPENCER: What?

MR. McALLISTER: May I see it before it is received in evidence?

EXAMINER SPENCER: Yes.

MR. McALLISTER: Before receiving it in evidence, Mr. Examiner, I made a request similar to that I have made with reference to the other exhibits, upon the basis it be brought down to the date upon which this hearing is commenced.

EXAMINER SPENCER: It is understood by counsel for respondent that upon the same condition as provided in other cases, the witness may supplement this by bringing it down to September 27th?

MR. WESTON: Yes.

EXAMINER SPENCER: Let the statement be received as Respondent's Exhibit No. 5.

(The document referred to was marked Respondent's Exhibit No. 5 and received in evidence.)

BY MR. WESTON:

Q. Now, Mr. Morris, will you summarize and explain this exhibit?

A. This is a summary of all transactions between Staten Island Edison Corporation and Public Service Electric and Gas Company, from the period August 26, 1935 to March 14, 1938.

The statement is subdivided as between kilowatt hours and dollars. The statement is broken down still further in four periods, the first period running from August 26th to December 31, 1935, the second period covers the calendar year of 1936, the third period covers the calendar year of 1937, and the fourth period covers the time from January 1, 1938 to March 14, 1938.

In respect of the kilowatt hours section of this statement it shows as the incidental flow first, delivered to Public Service Electric and Gas Company for each of the periods and the amounts received from the Public Service Electric and Gas Company for each of the periods.

The next line shows an excess of deliveries by Staten Island Edison Corporation of incidental flow over the receipts of incidental flow from Public Service Electric and Gas Company.

For the first period that excess of deliveries by Staten Island Edison Corporation to the Public Service Electric and Gas Company amounting to 111,100 kilowatt hours.

In the calendar year 1936 Staten Island Edison Corporation delivered 158,125 kilowatt hours more of incidental flow than they received from the Public Service Electric and Gas Company.

For the year 1937 the Staten Island Edison Corporation delivered 42,000 kilowatt hours more of incidental flow energy than they received from the Public Service Electric and Gas Company, and for the period January 1, 1938 to March 14, 1938, the Staten Island Edison Corporation delivered 36,000 kilowatt hours more of incidental energy to the Public Service Electric and Gas Company than it received from it.

Then, it shows the purchases of economy flow energy from the Public Service Electric and Gas Company, which during the period August 26, 1935 to December 31, 1935, amounted to 51,800 kilowatt hours.

For the calendar year 1936, 329,600 kilowatt hours.

For the calendar year 1937, 13,600 kilowatt hours, and there were no economy flow purchases by Staten Island Edison Company from Public Service Electric and Gas Company during the period January 1, 1938 to March 14, 1938.

In respect of purchases of emergency energy, there were no kilowatt hours purchased during the period August 26, 1935 to December 31, 1935.

For the calendar year 1936 Staten Island Edison Corporation purchased 3,725 kilowatt hours of emergency energy from the Public Service Electric and Gas Company.

For the calendar year 1937 the Staten Island Edison Corporation purchased 3400 kilowatt hours of emergency energy from Public Service Electric and Gas Company, and for the period January 1 to March 14, 1938, the Staten Island Edison Corporation purchased 1,000 kilowatt hours of emergency energy from Public Service Electric and Gas Company.

The next line shows the excess of net deliveries of economy flow energy by Staten Island Edison Corporation to Public Service Electric and Gas Company.

Q. Excess of—you say economy flow? Excuse me, you didn't mean that?

A. No. The next line shows cost of net kilowatt hours of incidental energy delivered by Staten Island Edison Corporation to Public Service Electric and Gas Company over the number of kilowatt hours purchased by Staten Island Edison Corporation from Public Service Electric and Gas Company as economy and emergency energy.

Now as to the dollar section of the statement, which is subdivided into the four periods I mentioned before, it shows for the year 1935, wait a minute, excuse me. It shows for the period August 26, 1935, to December 31, 1935, that the economy flow energy and emergency energy cost the Staten Island Edison Corporation $496.55, and that the excess of net deliveries of incidental flow amounted to $299.97, so that the net result of all transactions as between Staten Island Edison Corporation and Public Service Electric and Gas Company resulted in a net payment by the Edison Corporation of $196.58.

For the calendar year 1936, the total cost to the Staten Island Edison Corporation of economy flow and emergency energy amounted to $2,491.41, and that the amount coming to the Staten Island Edison Corporation, the net amount coming to the Staten Island Edison Corporation as result of excesses of deliveries of incidental flow amounted to $426.94. The net result of all transactions resulted in the Edison Corporation paying a net amount of $2,064.47.

For the calendar year 1937, the Edison Corporation purchased economy flow and emergency energy for a total of $280.37 and they had coming for the excess of net deliveries of incidental flow $115.56, so that the net dollar

cost as between the two companies for all transactions amounted to $164.81.

For the period January 1, 1938 to March 14, 1938, the total cost to the Edison Company for emergency flow energy, and there was no economy flow, was $48, and the amount coming to the Edison Corporation for net deliveries of incidental flow energy to Public Service Electric and Gas Company amounted to $97.20, so that the net dollar balance was in favor of the Edison Corporation to the extent of $49.20.

Q. Now, Mr. Morris, one or two general questions. In keeping the books and records of a public utility company, is there any distinction generally drawn between different types of power, that is, are they billed differently?

A. Oh, yes, very much so.

Q. As a practical matter, therefore, a commercial matter, there is some difference between these various types of power?

A. That is right.

Q. If so, will you state the difference?

A. Beg pardon?

Q. Is there any difference in cost?

A. Oh, materially so. For firm power you pay top prices. For economy—

MR. McALLISTER: (Interposing) Now Mr. Examiner, if this witness is testifying to the matters that are related and reflected on books as they came to him, that is one thing. If he is testifying as to the reason for the difference as an engineer he must be qualified to express a reason for it.

MR. WESTON: I am very careful to point out that he is not testifying as an engineer.

EXAMINER SPENCER: He is testifying as an accountant and expert in financial administration.

MR. WESTON: Public utility accounting.

EXAMINER SPENCER: Do you admit he is qualified?

MR. McALLISTER: He is an accountant, Mr. Examiner, although he intimated he was interested in the financial transactions.

MR. WESTON: I will qualify him as an operating man if you wish. It so happens he can just as well be qualified that way.

EXAMINER SPENCER: He has testified that he has had experience in public utility accounting and financing and that he is presently employed by some public utility.

BY EXAMINER SPENCER:

Q. Is that correct, Mr. Morris?

A. I have had considerable experience in public utility accounting and financing.

Q. That is right, you testified that?

A. Yes, sir.

EXAMINER SPENCER: I think that question would be competent.

MR. McALLISTER: If it is based upon records and why he knows there is a difference in the prices, it is perfectly all right. If he states the reasons are that someone produced bills for one that is higher than another, why that is a matter that is beyond the knowledge of this witness.

EXAMINER SPENCER: In any particular transaction that would be true. I understood the question to be, I understood it was a general question as to the practice in the profession.

BY MR. WESTON:

Q. Is there a difference that you know?

A. From my knowledge there is a difference and the difference in the price you pay for it, that is your question?

Q. That is right.

A. Certainly there is a difference.

Q. In connection with this case, have you examined to any extent the books of Jersey Central Power & Light Company?

A. Yes, sir.

MR. McALLISTER: What was that question, please? Have you examined the books of the Jersey Central Power & Light Company?

MR. WESTON: Yes, and his answer is yes.

BY MR. WESTON:

Q. Are the economy flow transactions between Jersey Central Power & Light Company and Public Service Electric and Gas Company reflected in the operating revenues of the Jersey Central Power & Light Company?

A. No, they are not. They are treated as a credit to production expenses.

MR. WESTON: That is all.

EXAMINER SPENCER: You may proceed with cross-examination, Mr. McAllister.

Off the record.

(Discussion off the record.)

EXAMINER SPENCER: We will recess for ten minutes.

MR. McALLISTER: Thank you.

(Short recess.)

EXAMINER SPENCER: The hearing will be resumed. You may proceed, Mr. McAllister.

Cross Examination

BY MR. McALLISTER:

Q. What was your instruction, Mr. Morris, which you received from Mr. Paxson? I think you stated you were working for him in the preparation of these exhibits.

A. Do you mean as to the scope of the investigation?

Q. What were you asked to do, and which you, fol-

A. I was instructed to get the detailed analysis, or lowing out those instructions, have attempted to do in relating on this paper the information which you show?

A. I was instructed to get the detailed analysis, or a summary of the transactions between Staten Island Edison Corporation and Public Service Electric and Gas Company, and that is what I have done.

Q. For the period shown on the exhibits?

A. That is correct. That is right.

Q. And did you receive any instructions as to the records you were to consult in assembling that information?

A. Mr. Paxson is a lawyer and I am an accountant. Maybe he would not even know, but I knew what to look for when he told me.

Q. Were you asked to get that from the books and records of the Staten Island Edison Corporation?

A. Yes, that is where it came from.

Q. Under those instructions were you requested to obtain the information from other records showing the purchases and sales of energy between the two companies, is that correct?

A. All the transactions between the two companies.

Q. Well now, have you shown on here the transactions between the two companies which would be involved in addition to the cost of maintenance on the cable from Mechanic Street to Atlantic Substation?

A. I show here—

Q. (Interposing) Just answer the question.

A. No, sir.

Q. That is a transaction between two companies?

A. Well, maybe I don't understand. Maybe I didn't state my instructions properly, Mr. McAllister.

Q. I just wanted to get that in detail what your instructions were.

A. The flow of energy between the two companies, the energy transactions between the two companies which involved kilowatt hours and dollars and cents.

Q. The flow of energy and amount of money that were respectively paid by one to the other in settlement for the energy they received?

A. That is right. I thought that was clear. I thought I was clear on it, but that is exactly what it is.

Q. That is what you were asked to get?

A. This is the flow of energy between the two companies and the amounts of money applicable thereto.

Q. You related the dollars and cents which you show on Exhibit 4 to the gross annual revenue of Staten Island Edison Corporation and also to the operating expenses?

A. As I recall, I just related them to the operating revenue.

Q. Well, you stated what the operating expenses were as best you could, to the best of your knowledge, did you not?

A. Yes, I did, but I did not relate these figures to that. I was relating them to the $4,000,000 worth of revenue.

Q. How would the amounts they paid out in various years relate to the revenue? Would that not be reflected in operating expenses rather than revenue?

A. The amounts they paid out?

Q. Yes, paid out.

A. Staten Island paid to Public Service?

Q. That is right.

A. That is in operating expenses?

Q. So that the two, operating expenses and revenue had some relation in the manner in which you stated it, to the figures which you show on Exhibits 4 and 5?

A. Of course, the amounts paid out by Staten Island for energy bought from Public Service would have a direct relationship to their expenses. Your expenses are around $2,800,000, and if you try to relate $280.37, as I did before, it makes little difference whether you relate it to the $4,000,000 or to the $2,800,000. It is inconsequential. That is what I was attempting to relate.

Q. If you were really trying to find out what this energy costs Staten Island Edison Corporation would you not also have to take into consideration the operating expenses which they incurred in the maintenance of interconnection?

A. The trouble with utility cost finding, Mr. McAllister, is it not a very fine art? What I took here was the amount of dollars billed back and forth. We didn't take into consideration—if I were going to make an exact cost study of the thing, I would take that into consideration. I don't know what the cost was now, because I didn't look at it, but that would be a factor in considering what the cost of energy was because it is part of the cost.

Q. You would have to have all this cost before you would really be in a position to relate it to operating expenses or revenues, depending upon whether it was money received or money paid out.

A. Well, let's see. I think that would be the only other cost that would enter in the cost of maintaining the line.

Q. How about return on the investment in the line?

A. Yes, that might go in. I think they would probably have an investment of, maybe,—well, I don't want to make a guess.

Q. No, I don't think it would be wise.

A. Because I don't know, and there is no sense in making a guess, but you would probably figure return on your money in there if you were going to make an exact cost study. If you were going to do that you would take into consideration all the factors involved.

Q. And depreciation and retirement would be another factor?

A. Yes, that would be a factor.

Q. You would not attempt to say what other elements in addition to those which we have just been discussing should be taken into consideration in determining the cost of this interconnection and the value of the interconnection, which ever way you want to relate it, would you?

A. Well, if you are making a cost study, if you want to get the cost of the power to the Edison Corporation, first you take into consideration the billing, that is the big item.

Q. Is that the big item?

A. That is the first one you would go to anyway.

MR. PAXSON: If the Commission please, I have been very patient, I think, but I would like to ask for an offer of proof and the purpose. This witness was put on to show certain transactions in dollars and cents. Now he has testified that. He hasn't testified at all as to what the cost of the energy was. He has not been offered to make any cost analysis or statements of that kind. I don't know the purpose of this and I think we are entitled to know. It is not proper cross examination at all.

EXAMINER SPENCER: Mr. McAllister, how

do you connect your line of questioning with the direct examination?

MR. PAXSON: I may be wasting time, but I think I am entitled to know.

MR. McALLISTER: This witness related these costs to operating expenses and revenues. He said they were infinitesimal, so to speak. Now I am showing on his statement he has not taken into consideration the real elements that must be taken into consideration before you say what is the cost of the energy. He has taken only one. I am going to—

MR. WESTON: (Interposing) We have got a particular situation here in that we can not spend too much time on insignificant things. It has already been testified this cable is only the length of Kill Van Kull, a few hundred feet. The cost of a few hundred feet of cable certainly is not of enough significance to waste an hour in cross-examination.

MR. McALLISTER: I think there are some other insignificant items in here.

MR. PAXSON: Why don't you cross-examine?

MR. McALLISTER: I am cross-examining on the direct testimony.

EXAMINER SPENCER: Proceed.

MR. PAXSON: If he wants to waste all of our time, let him go ahead and make him his own witness.

MR. McALLISTER: I want it distinctly understood I am not making him my own witness.

EXAMINER SPENCER: I don't think you have the power to do that. Just go ahead.

BY MR. McALLISTER:

Q. During the time this interconnection is maintained Staten Island Edison Corporation is relieved of the necessity of maintaining spinning reserve in its Livingston plant, isn't that true?

MR. PAXSON: I object to that. He is broaching engineering. We didn't offer him as an engineer. It has all been gone over and Mr. Lytle who knows the facts is not here now.

MR. McALLISTER: I am going to show through this witness that is a matter of dollars and cents. It was testified to by Mr. Lytle that it is a matter that enters into the determination of the figures before they can be related to operating expenses and operating revenue. Those are elements Mr. Lytle says go into the determination of these prices.

MR. WESTON: If Mr. Lytle said it why bring it out again? It is repetition.

MR. McALLISTER: It is not repetition.

EXAMINER SPENCER: Why don't you ask him the items he did take into consideration?

MR. McALLISTER: I did point it out. I am asking him about the ones he did not.

MR. WESTON: Point it out in the brief.

MR. McALLISTER: I will point it out now.

BY MR. McALLISTER:

Q. You heard the testimony of Mr. Lytle?

A. You have a question on there already.

Q. I will strike that question and put another.

A. All right.

Q. You heard Mr. Lytle testify at the time this interconnection was closed and operating there was no obliga-

tion or necessity on the part of Staten Island Edison Corporation to keep spinning reserve at their Livingston plant?

MR. PAXSON: We object to that as improper, irrelevant and not being proper cross-examination and not proper testimony.

MR. McALLISTER: I am asking the witness if he heard that testimony.

MR. PAXSON: I press my objection.

EXAMINER SPENCER: Overrule the objection.

MR. PAXSON: Exception.

EXAMINER SPENCER: Exception noted.

BY EXAMINER SPENCER:

Q. He asked you if you heard the witness Lytle testify that statement, did you?

A. I don't recall. I have been here on and off and in and out, but I don't remember about the spinning reserve. I am not an engineer, but I would have understood the question had I heard it. It may be in the record but I didn't read the record.

BY MR. McALLISTER:

Q. Did you take into consideration in any of your figures what the cost to the Staten Island Edison Corporation, or the savings to the Staten Island Edison Corporation, whichever it might be, were of being relieved of the obligation to maintain such spinning reserve?

A. My statement here,—

Q. (Interposing) Just answer the question.

A. Wait a minute.

Q. Then you can explain it?

A. Will you read the question, please?

(The reporter thereupon read the pending question as recorded.)

THE WITNESS: No, sir.

MR. WESTON: Mr. Examiner—

MR. McALLISTER: Just a minute, let the witness complete his answer.

MR. PAXSON: He has a right to make an objection.

MR. WESTON: Isn't it correct, the exhibit speaks for itself?

MR. McALLISTER: No.

MR. WESTON: He has a detailed exhibit and anything in regard to—

MR. McALLISTER: (Interposing) Let the witness answer.

MR. WESTON: Are you the Examiner?

EXAMINER SPENCER: Let me rule on that. What is the question, read the question?

(The reporter thereupon read the pending question as recorded.)

EXAMINER SPENCER: Now you may explain.

THE WITNESS: To continue with the answer, all this statement shows, and all it purports to show is the fact that certain payments were made by Staten Island Edison Corporation and Public Service Electric and Gas Company, and vice versa, and that is all it shows. It is not a detailed cost study. They can probably save some time. It refers to payments made by Staten Island Edison Corporation to Public Service Electric and Gas Company and Public Service Electric and Gas Company to Staten Island Edison Corporation. That is all it shows.

BY MR. McALLISTER:

Q. If you were undertaking in the statement to show whether there was a saving to Staten Island Edison Corporation or an expense to Staten Island Edison Corporation by reason of the maintenance of this interconnection in the manner in which they operated it, you would necessarily be required to take into consideration changes in operation which would arise from the maintenance of the connection, would you not?

MR. PAXSON: Objected to as not proper cross-examination. He hasn't testified to any savings. It is just a dollar and cents cost of the energy and it is a hypothetical question. For all those reasons I object to it as incompetent, immaterial and irrelevant.

MR. McALLISTER: He is an accountant, Mr. Examiner, and part of the duties of an accountant of the character which he says he is—

EXAMINER SPENCER: Just a minute. Off the record.

(Discussion off the record.)

EXAMINER SPENCER: On the record. Objection overruled, and exception noted. Proceed, Mr. McAllister.

MR. McALLISTER: Will you read the question?

(The reporter thereupon read the pending question as recorded.)

THE WITNESS: I just want to get it clear. What do you mean changes in operation?

BY MR. McALLISTER:

Q. Whether you maintain a generator spinning on the line or off the line, elimination of an entire power plant, let us say, if that should result—

A. (Interposing) That is based on these figures. I mean on the kilowatt hour flow. I am just trying to understand your question so I can give you a proper answer. I am not attempting to hedge. It is a long question.

Q. Let's start all over again and I will break it up.

A. All right.

Q. In any cost determination it is necessary to take into consideration all the elements that affect your cost, isn't that true?

A. That is elementary, yes. That is elemental, you have to do that.

Q. In determining cost to determine what is the direct out-of-pocket payments, the amounts billed for the energy sold, that would be the first element to be taken into consideration?

A. This would involve expense. It is running the other way.

Q. It runs both ways. You show a red figure on Exhibit 5.

A. It would in connection with the purchase of economy flow.

Q. I mean—

A. (Interposing) I am trying to get you straight because I want to give you the right answer.

Q. If it is expressed you put it on one side and revenue on the other, isn't that correct?

A. Usually. It depends which way it is coming.

Q. Which way it is coming?

A. Yes, sir.

Q. The cost to one company or the other company of maintaining the interconnection is another element of cost?

A. That is right.

Q. Is that correct?

A. Yes, I think that would be an element of cost.

Q. Investments, I mean return on the investment would be another element.

A. On that question I have a little bit of doubt because the utility industry is a little bit different from other industries because you recoup your return on investments from customers, and that might not enter in here since you are allowed a reasonable return on your investment and you recoup that on your rates. That may or may not go in. The circumstances of the particular cost study may or may not include cost on your money. In some cases you may have to include them as an includable cost item. In some cases, like this one, the Staten Island Edison Corporation is allowed a rate of return on investments and they recoup that from the rate payers. In the way you are attempting to do it, you are attempting to figure the return and cost item and you get double money.

Q. All right, you get double money here on this statement because they recouped from their customers.

A. No.

Q. Why don't you? The customers pay all the operating expenses. Therefore, I suppose it follows the customer pays these bills.

A. Of course.

Q. Now are—

A. (Interposing) Now please, you must remember in any utility rate case there are two things you must take into consideration. First is the amount of invested capital and you are allowed a rate of reasonable return on that. Now, what makes up that thing called rate of return? These two things are dovetailed together because your operating expense taken off revenues leaves you a net. That is your rate of return after all expenses have been taken out of your revenue. That is the net against which you apply 7 or 7½ per cent on your fixed capital. If that doesn't happen to equal the 7 or 7½ per cent which you are allowed you can go up on your revenues. If it is more

you cut the revenues. It dovetails together and you have to take them all into consideration at any given time. There may be certain items not allowed in your expense. They are kicked out in order to figure how much you are getting in relation to the amount the Commission will allow you. So, you have to take all of those factors into consideration and that is what I am trying to point out.

Q. Did I ask you, Mr. Morris, anything about a rate case or anything else?

A. I was merely trying to be helpful in this thing in answer to a question of yours as to whether or not I included personally a figure on return on investment that Staten Island Edison Company may have in the interconnection between the Atlantic Substation and bus on Mechanic Street. I was given you what I might or might not do. I did not say definitely I would or would not. I don't know.

Q. Let us get at it another way. If I asked you to determine the cost of transmitting energy from Mechanic Street Substation to Atlantic Substation would the return on the investment in that line be a proper element of cost?

MR. PAXSON: Objected to as incompetent, immaterial and irrelevant. These exhibits were not submitted as a power cost study and a power cost study can only be made by engineers and operators and not by an accountant. It is also not proper cross-examination.

MR. WESTON: This witness was asked about dollars and cents transactions between these two companies. He was also asked in general about what the total operating revenues were of this company. I don't think that he was asked to make any study on direct examination of the relationship between the two.

EXAMINER SPENCER: He was asked whether

or not these figures were significant in comparison with the revenues.

MR. McALLISTER: And expenses.

MR. WESTON: That is right.

EXAMINER SPENCER: Now as I understand the purpose of this cross-examination is to show this witness, the responses of the witness, that the figures are insignificant is not based upon facts which were derived by considering the items of cost involved. I will overrule the objection and you may proceed, Mr. McAllister.

MR. PAXSON: Exception.

MR. McALLISTER: Mr. Examiner, I would like to have a direct answer without having any longdrawn out explanation.

EXAMINER SPENCER: The witness may explain his answer. He is permitted to do that.

MR. McALLISTER: How far afield will he go?

THE WITNESS: I won't go far.

MR. PAXSON: You are going pretty far afield yourself, Mr. McAllister.

MR. McALLISTER: I am not going far afield.

EXAMINER SPENCER: Proceed.

BY MR. McALLISTER:

Q. Will you answer the question please?

A. Will you read it, please?

(The reporter thereupon read the pending question as recorded.)

THE WITNESS: I don't see why my answer would differ in relation to that.

BY MR. McALLISTER:

Q. I want an answer yes or no. That is a simple matter and well understood.

A. If you are making a study—

Q. (Interposing) The determination of cost of transmitting energy between two points. Now do you take into consideration the return on the investment in the line?

A. If you are trying to determine whether or not it would be feasible to make the interconnection—

Q. (Interposing) I am not asking that question, Mr. Examiner.

EXAMINER SPENCER: Mr. Morris, answer the question directly if you can. Then you can explain your answer.

THE WITNESS: The answer is you may or may not. It all depends.

BY MR. McALLISTER:

Q. Now—

A. (Interposing) Now I am trying to answer your question.

EXAMINER SPENCER: Let him proceed.

MR. McALLISTER: It is going to be a long-drawn out thing and I am going to put that question in another way. I related it first between Mechanic Street and Atlantic Substation. We are trying to determine in this question what is the cost of transmitting energy between those two points and that is the only thing involved, and I was saying in the determination of that cost of transmission, should in accepted accounting principles the return on the investment in the line be included as an element in the cost.

EXAMINER SPENCER: Can you answer the question, Mr. Morris?

THE WITNESS: I think so. I would say no. I will explain the reason why I say no, if you will permit me.

BY MR. McALLISTER:

Q. All right.

A. I won't go into a long story because I explained it before, because the return on that investment is recouped from your customers. That is the only reason I would exclude it.

Q. All right, I will ask you this question, if a cost determination was being made for the purpose of determining what amount you would charge a third person for transmitting energy over that line, no other use being made of it, would you include a return on the investment in the line?

MR. PAXSON: Mr. Examiner, I want to expedite this as much as possible, but I am compelled to object.

MR. McALLISTER: I am not going to expedite anything.

MR. PAXSON: Have I a right to be heard?

EXAMINER SPENCER: Certainly I will hear you.

MR. PAXSON: I want to expedite it as much as possible if it will be understood the same objection which I have been making applies to this whole line of questioning, I will refrain from interrupting.

EXAMINER SPENCER: It may be so understood. Proceed.

THE WITNESS: The answer to that question is yes, because you would want to get the return on your investment from your customer. That ties in with the answer before.

BY MR. McALLISTER:

Q. If you are determining here on the cost of transmitting this energy between Mechanic Street and Atlantic Substation, why do you apply a different principle there?

A. Well, in a suppositionary case you gave me a moment ago, you said it was only going to serve one particular customer. You would get the return on your investment from that particular customer. The reason I would exclude it there, if you got it from X in that case you are getting it from A, B and C, the other customers, so the return on the investment, it is a part of the rate base.

Q. I don't give a hang about that.

A. That is what I am trying to tell you.

EXAMINER SPENCER: All right, proceed.

BY MR. McALLISTER:

Q. The figures you show on Exhibit 4 and 5 enter into the determination of the expense of rendering service to your customers?

A. Yes, sir.

Q. It is recouped from them as part of your operating expenses?

A. That is right.

Q. If you are trying to determine the cost to Staten Island Edison Corporation or the net revenue which they receive by reason of the energy transmission between Mechanic Street Substation and Atlantic Substation, the investment on that particular line in that particular investigation is just as vital. We are only dealing with the energy which passes between those two points on this interchange and we are attempting to determine whether it cost Staten Island Edison Company something or whether it is a source of revenue to them, just related to the interconnection and having no relation to other property whatever.

A. If you want to forget the rate of return on the rate base, all right, include it there, but if you want to get it out of your rate of return it is a different thing.

Q. If you are determining the actual cost of transmitting energy between those two points you must take into consideration the return on the investment.

A. Not necessarily. You don't have to take it into consideration if you are going to get it some place else.

Q. I am not taking it somewhere else.

A. I am telling you what the practice is.

Q. I am asking you if you are trying to determine the cost of transmission between those two points that is one of the elments that must be taken into consideration.

A. Not necessarily.

EXAMINER SPENCER: He has answered the question, Mr. McAllister.

BY MR. McALLISTER:

Q. How about maintenance then?

A. You might include your maintenance as cost, yes.

Q. Might or might not?

A. Might, probably would.

Q. Would you?

A. Would I?

Q. Yes.

A. Yes.

Q. How about retirement or depreciation?

A. Yes, I would include that.

Q. You would include that?

A. Yes, sir.

Q. If as a result of energy flowing over that line you were able to eliminate the operation of a generator would you take that into consideration?

MR. PAXSON: That is objected to. He is not qualified as an engineer. He is asking now about engineering matters.

MR. WESTON: Take into consideration in connection with what?

MR. McALLISTER: In the determination of the cost of energy to that company.

EXAMINER SPENCER: Proceed.

MR. PAXSON: Have you ruled on my objection?

EXAMINER SPENCER: Yes, overruled.

MR. PAXSON: Exception.

THE WITNESS: If you could shut down a generator as a result of it you might consider that as part of your cost and probably would. That would result in a saving, the shutting down of a generator.

BY MR. McALLISTER:

Q. Would you include that?

A. If there were such a thing, if they did shut it down you would take the cost of running it off or add it on as part of the cost because if you are getting the energy from one place you don't have to get it from another, and whatever saving, great or small, you could make that as part of your cost.

Q. A credit to cost if it was a saving?

A. If you were trying to figure out what your costs were, that would be an offset to cost. A credit, and therefore a reduction in the total cost.

Q. Other variations in operation of a related character would be treated likewise?

A. What other variations have you in mind, Mr. McAllister?

Q. Well, supposing you could eliminate a transmission line.

A. You need a transmission line to get it from Mechanic Street or over there.

Q. It is assuming this generating plant is out of service?

A. No, I would not put that in as an item of cost, because your transmission line is there and built and I don't see much sense in figuring that as part of your savings in cost. I don't know how you would save the transmission line in the first place because, as I understand the testimony here, there are no transmission lines, but what I have in mind in this, you have your distribution high voltage in there and you would save no money there. You would have to energize your line between Atlantic Station and wherever you were going to use it, so how are you going to save any money?

Q. I am assuming we are going to tear down a line and eliminate it entirely because of the ability to obtain energy at the other end of the system because there would be no need of it, assuming that condition exists, you could eliminate a transmission line, or part of it, or a substation, whatever saving that would be accomplished thereby would also be an element to be taken into consideration.

A. Frankly that is rather a wild assumption, if you will pardon me for saying so. If you tear down a line it would be out of your fixed capital. The answer is no, I would not consider that at all.

EXAMINER SPENCER: All right, proceed.

BY MR. McALLISTER:

Q. You stated, did you not, that sales of Jersey Central to Public Service were not treated as revenue, but were treated as a credit to the cost of generation?

A. Sales by whom, sir?

Q. Jersey Central Power & Light Company to Public Service Electric and Gas Company.

A. Yes, I believe I made that statement they were credited to production expense.

Q. Is that a proper treatment of that item of revenue?

MR. AUTENRIETH: I object to that as far as Jersey Central is concerned. How can he say whether—

EXAMINER SPENCER: (Interposing) Objection sustained.

MR. McALLISTER: Will you read the question? I didn't ask him that question. I asked him whether that charge was proper.

MR. AUTENRIETH: Do I understand your Honor overruled the objection?

EXAMINER SPENCER: I sustained the objection.

MR. McALLISTER: Will you read the question?

(The reporter thereupon read the pending question as recorded.)

MR. McALLISTER: My question was broken into. The reporter didn't get it all.

EXAMINER SPENCER: You can ask him if that is in accordance with classification of accounts.

MR. McALLISTER: That is what I was leading up to.

MR. AUTENRIETH: I don't care about that. I object to the characterization whether Jersey Central accountings were proper.

EXAMINER SPENCER: All right.

BY MR. McALLISTER:

Q. I will put another question. Is that expense, charged as it is on the books of Jersey Central, is that expense as set up on the books of the Jersey Central in

conformity with the rules laid down in the uniform system of accounting prescribed by the Federal Power Commission?

MR. AUTENRIETH: I object to that question because it is not proper because it does not now appear that the Jersey Central is bound by the system of accounting of the Federal Power Commission. It is under the jurisdiction of the New Jersey Utility Commission.

MR. McALLISTER: I will amend the question by saying the rules prescribed by the Board of Public Utility Commissioners of New Jersey, I think that is the way it is characterized.

MR. AUTENRIETH: I press my objection.

EXAMINER SPENCER: On what grounds?

MR. AUTENRIETH: Simply I don't believe this witness can answer. He is not our employee. He said he made only one examination.

EXAMINER SPENCER: I can see where the question might go to another point. I will overrule the objection.

MR. AUTENRIETH: Exception.

MR. McALLISTER: The proper time, Mr. Examiner, if I may interrupt, was to make the objection on direct and there was no question but that was put to him on direct examination.

THE WITNESS: I am not particularly familiar with the present classification of accounts now in effect in New Jersey to answer your question, sir.

BY MR. McALLISTER:

Q. Then your answer on direct is to be understood to have been made in the light of that qualification also?

A. No, sir; my answer on direct was made as a result of looking at the records of Jersey Central Power & Light Company. Whether they are keeping their books in accordance with the classification of accounts presently in existence I have no knowledge. I assume they are.

Q. What significance was attached to your statement, why did you make the examination to determine that fact?

A. That came along incidentally as part of the examination because when you look at a voucher it always shows that it was charged and credited, and I happened to be somewhat observant and noticed that.

Q. Why does that matter stick in your mind so much that you should come down and relate it on the record?

A. I was asked to do it in the first instance and I happen to remember it.

Q. Counsel wasn't there when you examined the records and vouchers?

A. Of course not.

Q. You related that fact to him?

A. I didn't. He asked me the question.

Q. Mr. Weston?

A. I don't recall. He probably did.

Q. How would he obtain the information if you had not related it?

A. God only knows. There is no significance attached to it. I looked at a flock of vouchers and you see credit after credit.

Q. You had no purpose in mind?

A. Except to answer the question I answered in response to the assignment.

MR. ANTENRIETH: I will concede as far as Jersey Central is concerned it has no significance.

EXAMINER SPENCER: All right, proceed.

MR. McALLISTER: No more questions, Mr. Examiner.

EXAMINER SPENCER: Any questions for the respondent?

Redirect Examination

BY MR. PAXSON:

Q. Mr. Morris, are you a valuation engineer?

A. No, sir.

BY MR. WESTON:

Q. Mr. Morris, do you know about the length of the submarine cable underneath the Kill Van Kull connecting those companies?

A. I know nothing about that interconnection except what I have been told.

Q. Assuming that interconnection was about 400 feet long and the depreciation thereon was a thousand dollars a year and all the other factors counted up to some few thousands of dollars, would you still say the dollars and cents transaction between Staten Island Edison Corporation were insignificant compared to their total expenses and revenues?

MR. McALLISTER: Mr. Examiner, a question of that kind is founded on such obscure estimates and uncertainty that I do not think it merits any consideration in the record.

MR. WESTON: If he answers the question it will be taken for what it is worth.

MR. McALLISTER: I don't think the question ought to be answered.

EXAMINER SPENCER: Go ahead and answer.

THE WITNESS: Based on your assumption in relation to the total business of Staten Island Edison Corporation, it is still insignificant.

Recross Examination

BY MR. McALLISTER:

Q. It is what it is regardless of what language is used to describe it, isn't that true?

A. I don't know what you mean it is what it is. If you get your pronouns right—

Q. (Interposing) The statements you make weren't made on anything very definite.

A. Was based on—

Q. (Interposing) Assuming it was 400 feet long and they spent a few thousand dollars—

A. (Interposing) Like any other hypothetical question it was answered,—

EXAMINER SPENCER: Any more questions?

MR. McALLISTER: He didn't finish his answer. He was talking to me, Mr. Examiner. He didn't finish.

THE WITNESS: There was a period on the end of it.

EXAMINER SPENCER: Any further questions?

MR. McALLISTER: Yes, there is another question. (After a pause.) No further questions.

MR. WESTON: No further questions.

EXAMINER SPENCER: The witness is excused.

THE WITNESS: Thank you, sir.

(Witness excused).

EXAMINER SPENCER: We will take a recess until 1:45 p. m.

(Whereupon at 12:35 o'clock p. m. a recess was taken until 1:45 o'clock p. m. this day.)

AFTER RECESS

(Met, pursuant to the taking of the recess, at 1:45 o'clock p. m.)

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

MR. PAXSON: I will ask Mr. Sibley to take the stand.

EDGAR DOW SIBLEY

was called as a witness for and on behalf of Respondent and, having been first duly sworn, testified as follows:

Direct Examination

BY MR. PAXSON:

Q. Will you please state your name?

A. Edgar Dow Sibley.

Q. Where do you reside, Mr. Sibley?

A. Reading, Pennsylvania.

Q. Are you an electrical engineer?

A. Yes, sir.

Q By whom are you employed?

A. I am employed by the Utility Management Corporation.

Q. In what capacity?

A. As Chief Electrical Engineer.

Q. You are Chief Electrical Engineer of Utility Management Corporation?

A. Yes, sir.

Q. Mr. Sibley, will you please tell us something about your experience, let us say from the time you graduated from college, if you did?

A. From June 1902 until January 1903 I was a meter tester for the New York Edison Company.

Q. Just a moment, Mr. Sibley. Are you a graduate engineer?

A. Yes, sir.

Q. Have you any degrees?

A. Yes, sir.

Q. What?

A. I have the degree of Electrical Engineer from the Polytechnic Institute of Brooklyn, in 1911.

Q. Do you belong to any electrical engineering societies?

A. I am a member of the National Society of Professional Engineers; I am a Fellow of the American Institute of Electrical Engineers; I am a registered professional engineer in the states of Connecticut, New York, New Jersey, North Carolina, South Carolina and Florida, and in the Commonwealths of Pennsylvania and Virginia.

Q. You are a registered engineer in all those states?

A. That is true.

Q. Now, Mr. Sibley, tell us something about your experience as you started to do when I interrupted you a little while ago?

A. From January, 1903 until August, 1904 I was a substation operator in the substations of the Brooklyn, Rapid Transit Company, in Brooklyn, New York.

From August, 1904 to January, 1909 I was connected with the testing bureau of the Brooklyn Rapid Transit Company having charge of the electrical test work.

From 1909 to 1912 I was assistant superintendent of power of the Brooklyn Rapid Transit Company.

From June, 1912 to August, 1912 I was power station design engineer for W. G. Cole, Singer Building, New York City.

From August, 1912 to January, 1913 I was an appraisal engineer for the New England Engineering Company at Greenwich, Connecticut.

From January, 1913 to July, 1913 I was a relay engineer for the New England Power Company in Worchester, Massachusetts.

From July, 1913 to March, 1915 I was chief load dispatcher for the New England Power Company in Millbury, Massachusetts.

From March, 1915 to March, 1916 I was engineer for the West Virginia Traction and Electric Company in Wheeling, West Virginia.

From March, 1916 to January, 1920 I was superintendent of power and substations for the Metropolitan Edison Company in Reading, Pennsylvania.

From January, 1920 to October, 1922 I was superintendent of operation for all the General Gas Properties.

Q. Was the General Gas a large system?

A. I guess the full name is General Gas and Electric.

Q. I asked if that was a large system?

A. Yes, sir. We had several properties, large properties.

Q. In different states?

A. Yes.

Q. Go ahead, please.

A. The Metropolitan Edison Company was one. The Binghamton Light, Heat and Power Company was another. These properties connected directly to the Metropolitan Edison Company over in Easton, Pennsylvania and Dover, New Jersey. Also what is now the South Carolina Gas and Electric Company in Columbia, South Carolina; Florida Public Service Company, located at Orlando, Florida.

Q. Will you please proceed?

A. From October, 1922 to January 1925 I was electrical engineer of construction for these General Gas properties.

From January, 1925 to April, 1929 I was general superintendent of the Metropolitan Edison Company.

From April, 1929 to December, 1935 I was superintendent of Power Supply for Utility Management Corporation.

From December, 1935 to May, 1936, I was consulting Engineer for the E. M. Gilbert Engineering Corporation. The Utility Management Corporation absorbed the E. M. Gilbert Corporation as its engineering division. From May 1936 to date I have been vice-president and chief electrical engineer of both of these companies.

Q. Now, Mr. Sibley, are you acquainted with the physical facilities used by Jersey Central Power and Light Company and Public Service Electric and Gas Company at the points of interconnection between those companies, the connections or interconnections between those companies?

A. Yes, sir.

Q. You are acquainted with them personally?

A. Yes, sir.

Q. Are you also acquainted with the interconnection, that is, by personal inspection and observation, and do you know the connection between Staten Island Edison Corporation and Public Service Electric and Gas Company?

A. Yes, sir.

Q. Are you acquainted with and have you made studies concerning the facilities of the Public Service Electric and Gas Company at Mechanic Street, the connections or interconnections coming therein or going therefrom?

A. Yes, sir.

Q. Have you studied any of the charts, instruments and so on, that they have in that substation?

A. Yes, sir.

Q. As well as some that are not in the substation but that belong to Public Service Electric and Gas Company?

A. Yes, sir.

Q. Mr. Sibley, you know, do you not, that electric energy flows from Jersey Central Power and Light Company's South Amboy station? You are familiar with the South Amboy station of the Jersey Central Power and Light Company and have seen that, have you not?

A. Yes, sir.

Q. And you know that at certain times electric energy flows from that substation to the Mechanic Street substation of the Public Service Electric and Gas Company?

A. It does.

Q. I ask you as an engineer, Mr. Sibley, is it possible as a matter of engineering for Jersey Central Power and Light Company to direct or route any power into Staten Island?

A. It is not.

Q. Why not?

A. The only power that can enter the Staten Island Edison Company's system through the interconnection would be governed by the adjustment of the governors on the steam turbines in the Livingston generating station of the Staten Island Edison Corporation.

Q. Who does control the flow of energy from the Mechanic Street substation of Public Service Electric and Gas Company?

A. The Public Service Electric and Gas Company.

Q. Mr. Sibley, will you please describe from an engineering and operating standpoint the way the current received by Public Service Electric and Gas Company from Jersey Central Power and Light Company is handled after it leaves the Jersey Central Power and Light Company generators?

A. The electric power after leaving the generators at the South Amboy plant of the Jersey Central Power and Light Company enters transformers at 13,200 volts and is there stepped up to approximately 26,400 volts. It leaves this substation over two overhead circuits approximately 7/8 mile in length to the south bank of the Raritan River. Here it enters two submarine cables passing under the Raritan River until the cables meet Perth Amboy. From there they go in land cables in ducts to the Mechanic Street substation of the Public Service Electric and Gas Company.

Q. What happens there?

A. The power is then delivered to the bus bars of the Public Service Electric and Gas Company at the Mechanic Street substation in Perth Amboy.

Q. Have you seen this bus to which you are referring?

A. I have.

Q. Do you know what it consists of?

A. Yes.

Q. Have you seen the exhibit offered by the Commission which gives the straight line diagram, as I believe they describe it, of the bus bar at this Mechanic Street substation?

A. I have seen it.

Q. That is Exhibit No. 8. Will you please describe for the purpose of the record just what that bus bar consists of and describe any circuits in and out, if there are any circuits in and out, and tell us what they are, and also whether or not it is correct. This exhibit is substantially correct, isn't it?

A. Yes; this exhibit is correct.

Q. Will you proceed, please?

A. This exhibit is a one-line diagram of conditions as they exist there. Beginning on the left hand side of this diagram we have a circuit going to the General Cable Corporation. We then have a tap from this bus where power enters from the Jersey Central Power and Light Company, also where the power can be transferred in either direction to the Carteret circuit.

We also have on this bus section a circuit running directly to Metuchen and a bank of transformers reducing the voltage from 26,400 to 4,150 volts to supply the local load in the neighborhood of the Mechanic Street substation.

Proceeding toward the right hand side, we have an

oil circuit breaker which can be opened and isolate this section from the balance of the bus.

From the oil switch proceeding toward the right hand side of the diagram we have a circuit running to Metuchen. We have a second bank of transformers reducing the voltage from 26,400 to 4,150 volts: and there we meet another bus switch, this being an air-break type.

Proceeding further to the right we have the two cables running to the Staten Island Edison Corporation, a circuit running to Keasby, and on the extreme right hand end another circuit running to the General Cable Corporation.

Q. How many circuits attached to that bus are connected with general transmission circuits of the Public Service Electric and Gas Company in any?

A. There are four such circuits, two running directly to Metuchen and one running to Metuchen by way of Keasby and another by way of Carteret.

Q. In what direction does the energy on those circuits flow?

A. That is a matter of time and conditions and circumstances. It flows both ways over all of those circuits.

Q. In other words, electric energy will come in on those circuits to the bus bar, and at other times electric energy goes away from those bus bar on those circuits?

A. That is true.

Q. Would you say that condition prevails every day, that is, flowing in each direction?

A. I believe that is true.

Q. Have you been in the substation when you have seen that occur?

A. Yes, sir.

Q. Now, Mr. Sibley, we have traced the flow of electric energy from South Amboy to this bus bar you have described. What becomes of the electric energy after it hits that bus bar?

A. It is utilized to supply load requirements on the Public Service Electric and Gas Company.

Q. Would you say that it is absorbed into their system?

A. I did not understand the question.

Q. Would you say that it is absorbed into their system? Is that the proper way of putting it?

A. It is used to supply their requirements.

Q. Mr. Sibley, can you trace or earmark a kilowatt? You are a professional engineer. Can you trace or earmark a kilowatt? Mr. Grimsley thought that was a crude question when I put it to him. Perhaps you will think the same thing about it. I will put the same question to you that I put to Mr. Grimsley.

A. I will answer that question in the same way that Mr. Grimsley did. If you have a direct circuit to a given point you could pretty well identify the kilowatts to the point where another circuit met it. But where you have two lines converging at one point the identity of the Electric power and energy is lost.

Q. Now, Mr. Sibley, you say you have an operating and engineering knowledge and acquaintanceship with the Staten Island Edison Corporation properties. Is that correct?

A. That is correct.

Q. Do you know what the interconnection between Staten Island Edison Corporation and Public Service Electric and Gas Company is used for?

A. It is used to supply emergency power in both directions and economy power in both directions.

Q. What is economy power?

A. Economy power is that power which would be purchased by one company to replace energy generated by that company. It is always an arrangement between two companies where the generating facilities in one company

can be substituted for the generating facilities in the other company.

As to the price for the power, the arrangement is based upon savings which could be effected by producing this power on the part of the selling company's part as against the hypothetical cost of generating that power on the part of the receiving company. The savings thus effected are divided equally.

Q. Could you have economy power or economy flow power—which-ever is the correct term—if the purchasing company did not have adequate facilities at the time to generate this energy itself?

A. No, sir.

Q. Then economy power presupposes the existence on the part of the purchaser of sufficient generating capacity to generate that energy itself?

A. Yes, sir. And the cost is based upon that.

Q. What is emergency power?

A. Emergency power is that power which the company is forced to purchase because it has no other means of obtaining that power.

Q. At a particular time, I suppose.

A. At the time they need it.

Q. At such time what is known as the emergency arises?

A. That is correct—at any time any such emergency would arise.

Q. What is firm power?

A. Firm power is power which a company is obligated to deliver under a contract or purchase under a contract.

Q. Now, Mr. Sibley, is there any such thing as incidental power or slopover power? Do those terms convey anything to your mind?

A. Incidental power is that power which flows back and forth between two systems caused by variation in the power requirements of either one of the systems as com-

pared with the amount of steam being delivered to the turbines.

Q. Is this incidental power controllable by the two companies at the interconnection?

A. It is controllable to a certain extent. It cannot be controlled at the time it occurs but after it has occurred the governors can be so adjusted that you can reduce the power to almost zero through the tie-line.

Q. Mr. Sibley, have you studied the records of operation of Staten Island Edison Corporation with reference to the flow of energy between the interconnection with Public Service Electric and Gas Company from August 26, 1935 to March 14, 1938?

A. I have.

Q. Have you prepared a chart which shows this flow in either direction or both directions?

MR. McALLISTER: Between what dates did you ask?

MR. PAXSON: August 26, 1935 and March 14, 1938.

BY MR. PAXSON:

Q. Did you prepare such a chart, Mr. Sibley?

A. I did prepare such a chart.

Q. Is this the chart (indicating)?

A. It is.

MR. PAXSON: Mr. Examiner, I asked that this chart be marked for identification.

EXAMINER SPENCER: It may be marked for identification Respondent's Exhibit No. 6.

(The document above referred to was marked for identification Respondent's Exhibit No. 6.)

MR. McALLISTER: Possibly if Mr. Sibley were permitted to explain this chart we might understand it better.

MR. PAXSON: I have only asked that it be marked for identification.

MR. McALLISTER: I think it might be well to have the witness explain the chart.

EXAMINER SPENCER: You may proceed.

BY MR. PAXSON:

Q. Mr. Sibley, what does this chart which you have before you show? What is this chart? It is the result of your own study, isn't it?

A. Yes, sir. The data on this chart were taken from the records of the load dispatcher of the Staten Island Edison Corporation from the Staten Island Edison Corporation's records. This chart shows the kilowatt hours which have passed over the interconnection between Mechanic Street and Staten Island Edison Corporation each day for the period beginning August 26, 1935 and up to and including the 14th day of March, 1938.

The height of the graph above the base line shows the amount of kilowatt hours each day transferred from the Public Service Electric and Gas Company to the Staten Island Edison Corporation.

Q. That line has on the two ends the figure zero? Is that right?

A. The zero line has:

Q. The middle line?

A. The middle line.

Q. The middle line of these two graphs? Is that right?

A. That is right.

Q. Will you proceed, please?

A. The graph below the zero line indicates the kilowatt hours each day that have been transferred from the Staten Island Edison Corporation to the Public Service Electric and Gas Company.

The solid blocks in there represent—

Q. You mean those indicated in black?

A. Yes, sir. The solid blocks represent both emergency and economy energy which has passed over this interconnection. The value of this scale shows that one millimeter is the first small line up above the zero line and is equal to 2,000 kilowatt hours.

The break in this line in the early part of May 1937 shows a time when there was no energy passing over this interconnection because of cable trouble.

This chart shows that day by day and month by month and year by year the amount of power transferred in one direction is practically equal to the amount of power transferred in the opposite direction.

Q. You are speaking now about the incidental power?

A. This chart represents all power transferred over this interconnection.

Q. But the parts blocked in solid black represent the economy and emergency group?

A. They do.

Q. So the flow as shown by the other two lines represent incidental?

A. The greater portion of the chart is incidental power, and it was drawn to show that the incidental power balances out each day, each month and each year.

BY MR. McALLISTER:

Q. Will you repeat that answer, please?

A. The greater portion of the chart is incidental power, and it was drawn to show that the incidental power balances out each day, each month and each year.

BY MR. PAXSON:

Q. Mr. Sibley, is all of the economy flow and emergency power shown on this chart in this solid black box?

A. No, sir. There are times when we could not indicate on this graph all of the emergency power because

it was too small, the smallest division being 2,000 kilowatt hours.

Q. Emergencies which have been testified to as occurring for a period of a minute or two minutes could not be shown on this chart, could they?

A. No, sir. As I recall the previous testimony, some of these emergencies were of one minute or two minutes duration. Therefore, a thousand kilowatts for one minute would be only 1/60th of that value, or approximately 17 kilowatt hours, which you could not show on a graph with this scale.

MR. PAXSON: May it please the Commission, I now offer this chart in evidence.

EXAMINER SPENCER: Is there any objection?

BY MR. McALLISTER:

Q. Just to correct something that seems to be obvious, Mr. Sibley, would that be 17 or 107?

A. Well, for one minute it would be 1,000, divided by 60. I guess it is 17.

Q. I think you are right. I figured in mind that it was 107.

EXAMINER SPENCER: The chart will be received as Respondent's Exhibit No. 6.

(The document above referred to was received in evidence and marked Respondent's Exhibit No. 6).

BY MR. PAXSON:

Q. Mr. Sibley, will you please tell us from respondent's exhibit No. 4, which was introduced this morning by Mr. Morris, how much emergency energy, expressed in kilowatt hours, was purchased by Staten Island Edison Corporation from Service Electric and Gas Company from August 26, 1935 to March 14, 1938? I believe the totals are on the bottom line.

MR. McALLISTER: As shown by this exhibit?

MR. PAXSON: That is correct. I mean as shown by this exhibit.

THE WITNESS: 8,125 kilowatt hours.

BY MR. PAXSON:

Q. Does that represent a large amount of electric energy? In a practical way what would it amount to?

A. "Large amount", of course, is a relative term. It represents something less than 300 kilowatt hours per month over this period.

From this General Electric Handbook I find that the home water heater will average 340 kilowatt hours per month. So that energy would not supply the average domestic hot water heater for this period.

Q. How much economy flow energy is shown on respondent's exhibit No. 4 as having been purchased by Staten Island for the same period of time?

A. 395,000 kilowatt hours.

Q. That is a much larger figure. Would you consider that a large amount of energy?

A. Again that is a relative term.

Q. Just what could you do with that energy?

A. That is an average of 18 kilowatt hours per hour over that period. That might run a 25-horse-power motor continuously, if it be efficient at 100 per cent.

Q. If it did not have that efficiency it couldn't even do that?

A. Well, it would be a smaller motor.

Q. Now, Mr. Sibley, you have studied the figures showing the generation of Jersey Central Power and Light and Staten Island Edison Corporation for the period from August, 1935 to March 14, 1938?

A. I have. But I would like to modify that a little bit. I don't remember studying the generation of the Staten Island Edison Corporation. I studied the genera-

tion of the Jersey Central Power and Light Company and the transfer of energy between the Staten Island Edison Corporation and the Public Service Electric and Gas Company.

Q. Both ways on this transfer? Is that correct?

A. Yes, sir.

Q. Does this compilation represent the figures as to generation of the Jersey Central Power and Light Company by months and the transfers of energy from Staten Island to Public Service Electric and Gas Company, and vice versa, for those same months?

A. It does.

Q. Was this compilation prepared by you or under your direction?

A. Yes, sir.

Q. From figures that were made available to you by both companies concerned?

A. That is correct.

Q. Will you please explain this compilation? What does it show, Mr. Sibley?

A. The first column represents the time in months from August, 1935, up to and including March, 1938.

The second column is the total net kilowatt hours generated by all the generators of the Jersey Central Power and Light System. That is headed column "A".

Under Column "B" is shown the amount of kilowatt hours each month that the Staten Island received from Public Service Electric and Gas Company.

Under column "C" we have shown the kilowatt hours each month transferred that the Public Service Electric and Gas Company received from the Staten Island Edison Corporation.

Column "D" is the difference between Column "B" and column "C". In other words, it shows how far the operator missed balancing the flow of power over the

interconnection between Pubic Service Electric and Gas Company and Staten Island Edison Corporation.

In the next to the last column—

Q. Just a moment before we come to those columns, Mr. Sibley, so that we may clarify this compilation. This covers all transfers of energy, whether emergency, economy flow or incidental power? Is that correct?

A. Yes, sir. That is the total.

Q. So that this net interchange does not necessarily show any failure to balance incidental flow since the other energy is included in these figures? Is that correct, Mr. Sibley?

A. That column is really the algebraic sum of Column "B" and Column "C".

Q. Now, Mr. Sibley, will you proceed, please?

A. The next to the last column, headed $\frac{B}{A}$ in per cent—these figures were obtained by dividing the kilowatt hours in column "B" by the kilowatt hours given in column "A".

Q. Expressed in terms of percentage?

A. Yes, sir.

Q. So that—?

A. So that should all of the power—which, of course, it does not, flowing in the interconnection from the Public Service Electric and Gas Company to the Staten Island Edison Corporation—come from the Jersey Central Power and Light Company, in the case of August, 1935, that percentage would be 1.04 per cent. And any other month can be determined in the same manner. They are all less than one per cent, with one or two exceptions.

Q. What is the lowest and what is the highest?

A. The highest is 1.33 per cent.

Q. It is 1.36 right above that, isn't it?

A. Oh, yes; 1.36 and 0.73—practically three-quarters of one per cent.

Q. How about December, 1935?

A. That is higher.

Q. I mean 1936.

A. That is a little lower. That is 0.69 per cent.

Q. What does the other column to the right of that show?

A. The column to the right was obtained by dividing the kilowatt hours in column "D" by the kilowatt hours in column "A". This is a relation between the net flow over this interconnection as compared with the total generation by all generators of the Jersey Central Power and Light Company.

Q. As this comparison is made, expressed in percentages, Mr. Sibley, it becomes very slight indeed, doesn't it?

A. Yes, sir. That varies here. I see a low per cent of 0.003 in the case of November, 1937, and the highest one I note is 0.478 per cent in June, 1936.

Q. Yes, and in February, 1936, you have one even lower than that, haven't you?

A. Yes, sir. That is 0.002 per cent.

Q. Then, as I understand it, in preparing this chart for purposes of quantitative comparison only you are assuming all of the Staten Island energy which comes over this tie or interconnection came from the Jersey Central Power and Light Company. Is that correct?

A. That is correct.

MR. PAXSON: Now, Mr. Examiner, I offer in evidence this compilation.

EXAMINER SPENCER: Is there any objection?

MR. McALLISTER: No objection.

EXAMINER SPENCER: The compilation will be received in evidence and will be marked Respondent's Exhibit No. 7.

(The document above referred to was marked Respondent's Exhibit No. 7 and was received in evidence)

BY EXAMINER SPENCER:

Q. Let me ask you one question, Mr. Sibley, as to this next to the last column. That is 1.4 per cent of what?

A. That is obtained—

Q. I know, Mr. Sibley, but that represents 1.04 per cent of the total amount of electricity generated by the Jersey Central Power and Light Company?

A. The amount which has flowed from the Public Service Electric and Gas Company to the Staten Island Edison Corporation. We assume that if all of that had come from the Jersey Central Power and Light Company—

Q. That it would have been 1.04 per cent of the generated power?

A. That is correct.

BY MR. PAXSON:

Q. Now, Mr. Sibley, as an engineer would you say that there is any relation between the flow of energy received by Public Service Electric and Gas Company from Jersey Central Power and Light Company at the Mechanic Street substation and the power which may from time to time flow from Mechanic Street substation of the Public Service Electric and Gas Company to Staten Island Edison Corporation?

MR. McALLISTER: Mr. Examiner, I don't understand what the question means.

EXAMINER SPENCER: Will you repeat the question, please, Mr. Paxson?

MR. PAXSON: May I ask the Reporter to read the question?

(The question was then read by the Reporter.)

MR. McALLISTER: I am objecting to that, Mr. Examiner. I don't know what is meant by the term "relationship." If counsel for respondent will state what he means by "relationship," I may have no objection to the question.

EXAMINER SPENCER: I do not understand it myself. Mr. Paxson, for my guidance, as well as that of Mr. McAllister, will you—

MR. PAXSON: I shall withdraw the question rather than explain it.

EXAMINER SPENCER: There is no disposition to exclude it necessarily. I just don't understand what it means.

MR. PAXSON: I shall withdraw it and express it by graphs. Perhaps we can get around to it in that way, Mr. Examiner.

EXAMINER SPENCER: All right, Mr. Paxson. You may proceed. But, frankly, these curves are harder for me to understand than the English language.

MR. PAXSON: Possibly an engineer can explain them. But I agree with you myself personally, Mr. Examiner.

BY MR. PAXSON:

Q. Mr. Sibley, I hand you a graph. Will you please tell me what that represents.

And, Mr. Examiner, I shall ask that that graph be marked for identification as Respondent's Exhibit No. 8.

THE WITNESS: This is a photostat of two charts taken from graphic watt meters on the switch-

board in the Mechanic Street substation of the Public Service Electric and Gas Company in Perth Amboy.

The charts represent time from 12:00 midnight on August 12, 1936 until 5:00 a. m. on August 13th. Both charts have coincident times.

The upper chart shows the interchange of energy over the tie line between the Staten Island Edison Corporation and the Public Service Electric and Gas Company.

The lower chart represents the amount of power flowing from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company.

The vertical divisions on this chart represent a period of five minutes. In other words, there would be 12 such divisions to represent an hour. This is true on both the upper and the lower charts.

BY MR. McALLISTER:

Q. Would that be the vertical subdivisions or the horizontal subdivisions?

A. I said the vertical lines. This is a vertical line this way (indicating), and that divides the time into five minutes duration.

BY MR. PAXSON:

Q. In other words, Mr. Sibley, between 4:00 a. m. and 5:00 p. m., there are vertical lines which still further subdivide the time into periods of five minutes? Is that right?

A. The total period on this chart is but five hours, approximately, and each hour has been divided into 12 parts; so that each division is for a five minute interval.

Referring to the upper graph it will be noted that a line running through the center of this chart is marked zero. That is a time when a point on this graph would

represent no power flowing in the interconnection. Every time you see the graph above this zero line there is power flowing from the Staten Island Edison Corporation to the Public Service Electric and Gas Company.

Q. During that interval of time represented by the graph, Mr. Sibley?

A. And any time that the graph shows a distance below this zero line power is flowing from the public Service Electric and Gas Company through this interconnection to the Staten Island Edison Corporation.

Each division on this upper graph represents 400 kilowatt hours.

Let me modify that statement. That is, each vertical division, I mean.

Referring to the lower chart, colored in blue, there is also a zero line in the center of this chart, and distances above this line represent the amount of power flowing at any instant from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company. The space between the horizontal lines has a value of 2,500 kilowatts.

These charts were taken from these automatic graphic watt meters and photostated. The only marks added to this photostat are the notations from Staten Island Edison Corporation to Public Service Electric and Gas Company and from Public Service Electric and Gas Company to Staten Island Edison Corporation.

Of course, the color was added to the photostat.

The object in preparing this exhibit was to show a case where economy power was flowing from Jersey Central Power and Light Company to Public Service Electric and Gas Company and that during this time an emergency arose on the Staten Island Edison Corporation's property which required the Staten Island Edison Corporation to purchase emergency power. This quantity of emergency power so obtained is shown in red on the upper graph.

The object in placing these charts so that the time would be coincidental was to show that a draft of power by Staten Island Edison Corporation from the Public Service Electric and Gas Company had no effect whatsoever on the power delivered by Jersey Central Power and Light Company to the Public Service Electric and Gas Company:

Q. As an engineer, Mr. Sibley, this graph shows that result?

A. It is absolutely what I expected to see.

EXAMINER SPENCER: At this time, gentlemen, we will take a short recess.

(Whereupon, a short recess was taken, after which the following occurred:)

EXAMINER SPENCER: The hearing will be resumed.

BY MR. PAXSON:

Q. Now Mr. Sibley, taking up the upper portion of this chart, starting from the right you have these black lines which look something like a jig saw puzzle to me, up and down. What does that represent?

In other words, there is no coloring there and you have the line that goes above zero and below zero up and down. Does that represent incidental power?

A. That line was drawn by a pen on this graphic watt meter. This pen actually follows the flow of electrical energy through the interconnection. And every case where a mark appears above the line entitled zero, power is flowing from the Staten Island Edison Corporation to the Public Service Electric and Gas Company, and every time this line appears below this line marked zero, power is flowing from the Public Service Electric and Gas Company to the Staten Island Edison Corporation.

Q. Then, taking the first half hour from 12 to 12:30 a. m., what does that line show as to the flow of power in either direction?

A. The photostat unfortunately is blurred between 12:25 and 12:30 a. m. on August 13th. However, for the first 25 minutes, from midnight, August 12th, until 12:25 a. m. on August 13th there are approximately 12 instances where power flowed from Staten Island Edison Corporation to the Public Service Electric and Gas Company. During this same interval there were 12 instances where power was flowing from Public Service Electric and Gas Company to Staten Island Edison Corporation.

Q. In other words it shows an oscillation back and forth for that short interval of time showing the power flowing both ways in 25 minutes 12 times?

A. This graph accurately reflects what is transpiring through this interconnection.

Q. Now take this large portion which is colored in red in the upper part of this graph, somewhere before half past two in the morning until 3:30, and then fading away up to 4 a. m. You stated that represented an emergency.

A. That is right.

Q. Is that the largest draft of emergency power taken by the Staten Island Edison Company from Public Service Electric and Gas Company during the period August 26, 1935 to March 14, 1938?

A. It is.

Q. And that is the reason you selected that?

A. That is correct.

Q. Now over further to the right of the larger portion colored in red you have marks also colored in red. That really doesn't show any emergency, does it?

A. The object of the color here was to show the times when power was flowing from the Public Service Electric Company to the Staten Island Edison Corporation.

Q. Well, now, I will put my original question I withdrew. Reading this chart which you have before you as an engineer, can you adduce any inference as to whether there is or is not any relationship between the flow of power from Public Service Electric and Gas Company to Staten Island Edison Corporation and the flow from Jersey Central Power and Light Company to Public Service Electric and Gas Company?

MR. McALLISTER: Mr. Examiner, I have no objection to that question being answered if the witness will state what he understands by the term relationship.

EXAMINER SPENCER: All right, sir.

MR. PAXSON: All right, let the witness state it.

EXAMINER SPENCER: All right, sir.

THE WITNESS: The graph covered in blue—

MR. McALLISTER: (interposing) Mr. Examiner, I want that term defined before the question is answered.

EXAMINER SPENCER: What?

MR. McALLISTER: The question of relationship. Now what does he understand through the use of the word relationship as used in the question? I am perfectly willing to have him answer the question when that is explained.

EXAMINER SPENCER: Does counsel for the respondent wish to explain what he means by relationship?

MR. PAXSON: By relationship I mean this, does an extraordinary draft of power as shown by this

graph in case excess of emergencies by Staten Island on Public Service, does that in any way affect the flow of energy from Jersey Central Power & Light Company to Public Service Electric and Gas Company.

MR. McALLISTER: If the chart shows that and the witness so states I have no objection to his answering the question.

EXAMINER SPENCER: All right, you may answer, Mr. Sibley.

THE WITNESS: The blue portion of this chart shows the amount of power flowing at any instant and all times from the Jersey Central Power & Light Company to the Public Service Electric and Gas Company. The curve colored in red shown on the upper chart shows the power at any time and all times that is flowing between Staten Island Edison Corporation and the Public Service Electric and Gas Company.

An inspection of this chart shows that when the emergency draft of power by the Staten Island Edison Corporation from the Public Service Electric and Gas Company existed that there was no noticeable change in the variation with which power was being delivered from the Jersey Central Power & Light Company to the Public Service Electric and Gas Company.

BY MR. PAXSON:

Q. Does this graph show the time of this emergency on the Staten Island Edison Corporation's lines that there was any increase in flow of power from Jersey Central Power & Light Company to Public Service Electric and Gas Company?

A. None that I can see.

Q. Does not this graph also show that the increases in power taken by Staten Island Edison Corporation at this time from Public Service Electric and Gas Company

resulted in increased generation on the System of Public Service Electric and Gas Company?

MR. McALLISTER: May I have that question read, please?

EXAMINER SPENCER: Read the question, Mr. Reporter.

(The reporter thereupon read the pending question as recorded.)

THE WITNESS: It shows that.

BY MR. PAXSON:

Q. Now, Mr. Sibley, Mr. Grimsley, when he was on the stand testified that Jersey Central Power & Light Company operates in synchronism with certain other New Jersey Public Service companies which in turn he stated operated in synchronism with Public Service companies outside the state of New Jersey.

Q. What is operating in synchronism?

A. Synchronism implies not only identical speeds, but coincident pulsation of the electric voltage or power.

Q. Now, Mr. Sibley, I ask you as an engineer whether or not 1 kilowatt of energy flows over any interconnection merely because the companies operating the interconnection may happen to operate in synchronism?

A. Electric power does not flow because machines are operated in synchronism.

Q. Now does the fact that Jersey Central Power & Light Company is synchronised with other companies show of itself that Jersey Central ever supplies any electricity that was utilized in either New York or Pennsylvania?

A. Not through the mere fact that it was in synchronism with other generating equipment.

Q. What things have to coincide then before Jersey Central supplies any substantial amount of power to any other company? If it is not just synchronism, what is it?

A. In order to get electrical energy from the generators on the Jersey Central Power & Light System into the Public Service Electric and Gas Company System it would be necessary that the generators of these two systems are operating in synchronism.

Assuming that the facilities to transmit power were adequate, this would only flow from the Jersey Central System to the Public Service System if an additional amount of steam was admitted to the turbo-generators beyond that which was required to carry the load of the Jersey Central Power & Light Company's own customers.

Q. Now suppose Jersey Central had no interconnection with Public Service, would it still be possible for Public Service to operate its interconnection with Staten Island Edison Corporation?

A. Yes, sir.

Q. And any other interconnection it might have with Philadelphia Electric Company or Pennsylvania Power and Light Company?

A. Yes, sir.

Q. Is Jersey Central Power & Light Company a necessary source of supply for Public Service to meet the requirements of these interconnections?

A. No.

MR. PAXSON: I wish to offer this chart at this time as an exhibit.

EXAMINER SPENCER: Mr. Paxson, will you be good enough to describe this chart? The other reporter was here when you identified it.

MR. PAXSON: If you don't mind I am going to ask Mr. Sibley to describe it. He is a technical engineer and I might make a bad job of it.

EXAMINER SPENCER: This will be sufficient showing power interchange between Staten Island Edison Corporation and Public Service Electric and Gas Company, and between the Jersey Central Power & Light Company and Public Service Electric and Gas Company, is admitted as previously identified by the witness and identified as Exhibit No. 8.

(The document referred to was marked Respondent's Exhibit No. 8 and received in evidence.)

BY MR. PAXSON:

Q. Now, Mr. Sibley, this graph which we have just introduced as an exhibit shows of course only one case of an extraordinary emergency draft by Staten Island Edison Corporation on Public Service Electric and Gas Company. Did you examine the recording instruments for other instances?

A. I did.

Q. What did they show? Are they comparable or not?

A. They show the same relationship. The reason for this particular chart was because in this duration of time from August 26, 1935 to March 14, 1938, inclusive, it was at a time when the Staten Island Edison Corporation required more emergency power from Public Service Electric and Gas Company than any other time. In fact, I believe the energy purchased during this emergency was approximately 40 per cent of all emergency power furnished to the Staten Island Edison Corporation.

BY EXAMINER SPENCER:

Q. For what period of time?

A. For the period of time from August, 1935 to and including March, 1938.

BY MR. PAXSON:

Q. Now, Mr. Sibley, in your opinion as an engineer, would the transfer of economy power between Jersey Cen-

tral and Public Service increase the flow of power between Public Service Electric and Gas Company and the Philadelphia Electric Company?

A. No.

Q. Why not?

A. The transfer of economy power is predicated on the assumption that this power which is supplied as economy power would otherwise be generated on a certain machine. Therefore, it would not change the forecast or relation between the transactions of the Public Service Electric and Gas Company and the Philadelphia Electric Company.

Q. Now, would the transfer of economy power between Public Service Electric and Gas Company and Philadelphia Electric Company increase the flow of power between Jersey Central and Public Service?

A. No. The only thing that determines between the Jersey Central Power & Light Company and the Public Service Electric and Gas Company is the amount of steam admitted to the generators on the System of the Jersey Central Power & Light Company.

Q. Is that what governs the actual flow of power between Jersey Central and Public Service?

A. It is.

Q. Now, Mr. Sibley, are you acquainted with the connection between the Jersey Central Power & Light Company and the Public Service Electric and Gas Company at Wrightstown and New Lisbon?

A. Yes, sir.

Q. You have examined that?

A. Yes, sir.

Q. Well, will you tell us something about that connection? Where does the power come from which flows to Jersey Central Power and Light Company at those points, Wrightstown and New Lisbon?

A. May I have a map?

EXAMINER SPENCER: Yes.

MR. McALLISTER: Will the witness identify the map? I think that is Intervenor's Exhibit No. 1 you are referring to, is it not?

THE WITNESS: That is correct with the exception I have traced it back into Burlington.

MR. McALLISTER: That is all right, if you can describe it so we will be able to indicate on the record—

THE WITNESS: (interposing) There is no objection to my having this map?

MR. McALLISTER: None whatever, except that if you use a map which is not the same one we have or the same one in the record it will be rather difficult for us to follow.

THE WITNESS: I just wanted to refresh my memory on Burlington, Mt. Holly and Birmingham.

MR. McALLISTER: That is all right if you want to refresh your memory. I know how difficult it is to follow these things if they are not on the map.

THE WITNESS: The power supplied by the Jersey Central Power & Light Company to the New Lisbon territory comes from the Burlington Station.

BY MR. PAXSON:

Q. You mean power supplied by Jersey Central or to Jersey Central, pardon me. Go ahead.

A. The Burlington Station, over two 226 K. V. lines as far as Mt. Holly. There is a single circuit 26 K V line from Mt. Holly to the Birmingham Substation of the Public Service Electric and Gas Company.

MR. McALLISTER: We don't have those points on our map.

THE WITNESS: Here is Burlington here, and I am telling about this line. I believe Mr. Grimsley testified about that.

MR. McALLISTER: Not about this connection. I followed him at the time.

THE WITNESS: I went over the ground and took these notes and put them on the map myself.

MR. McALLISTER: Just a moment. Off the record.

EXAMINER SPENCER: Off the record.
(Discussion off the record.)

EXAMINER SPENCER: On the record. The witness may proceed.

MR. McALLISTER: Mr. Paxson, may we consider this map, which is included in the Public Service Electric and Gas Company report to the Commission, which the witness says shows what he is describing accurately, could we consider that a part of the record, although I haven't offered it?

MR. PAXSON: I am perfectly willing this be considered a part of the record if limited to what Mr. Sibley testifies to. I haven't studied the map sufficiently to know anything about the voltage of other lines, but to the extent he testifies to it will be all right.

EXAMINER SPENCER: All right, proceed.

THE WITNESS: At the Birmingham Substation there are—

BY MR. PAXSON:

Q. (interposing) That belongs to Public Service.

A. To the Public Service Electric and Gas Company.

BY EXAMINER SPENCER:

Q. Is that located in New Jersey?

A. Yes, sir.

EXAMINER SPENCER: All right.

THE WITNESS: There are two banks of transformers, the GE transformers with a rating of 2,000 KVA, transform all this power from 26,400 volts to 4,000 volts. From this 4,000 volt bus are supplied local distribution. There is a bank of 2,000 KVA Pittsburgh transformers stepping this 4,000 volts up to 13,200 volts. It is delivered to a 13,200 volt line as far as Comical Corners. At Comical Corners is located a watt meter which supplies the New Lisbon Substation of the Jersey Central Power & Light Company. In those substations three 100 KVA transformers step the voltage down from 13,200 volts to 4,000 volts. Beginning at Comical Corners and going toward Wrightstown there is a tap into Camp Dix, a customer of the Public Service Electric and Gas Company. A short distance beyond Camp Dix there is a substation adjacent to the town of Wrightstown which transforms the power from 13,200 volts to 4,000 volts. The capacity of this substation is 300 kilo volt amperes.

Q. Now, Mr. Sibley, would you say that line or lines from Birmingham right through to New Lisbon or Wrightstown are distribution lines or transmission lines?

A. They are distribution.

Q. And these lines are used, or rather this connection is used by the Public Service purely for purposes of distribution?

A. Yes, sir.

Q. Now, Mr. Sibley, you heard some testimony from Mr. Grimsley about the power interchange arrangement between Public Service Electric and Gas Company, Philadelphia Electric Company and Pennsylvania Power and

Light Company, which he variously described as an interconnected system and also as a power pool.

Based on your experience as an engineer and your knowledge of these different systems, what is a power pool?

A. In the sense used, it is an arrangement whereby the Philadelphia Electric Company, Pennsylvania Power and Light Company, the Public Service Electric and Gas Company would operate as if they were under common management, under one load director, so that power could be generated in the cheapest possible manner and that the savings accruing from such operation would be proportionately divided between the contracting parties.

Q. Is this power pool arrangement based on delivery of firm power or not?

A. This power pool derives its savings principally by deferring plant investment on the three properties. There is considerable yearly diversity between the Public Service Electric and Gas Company and the two companies operating in Pennsylvania.

Q. Now, Mr. Sibley, have you seen Exhibit No. 11 introduced by the attorney for the Federal Power Commission, or by Mr. Grimsley rather?

A. Yes, I have.

Q. Have you a copy of the exhibit before you, Mr. Sibley?

A. I have.

Q. What is this exhibit entitled?

A. Public Service Electric and Gas Company Mechanic Street Substation instrument readings recorded on substation log sheets.

Q. Now this exhibit purports to give the instrument readings in various columns for different circuits. Is that correct?

A. That is correct.

Q. Now the first column Jersey Central Power & Light Company in, that is expressed in kilowatts, is it not?

A. It is.

Q. The other columns, what are they expressed in?

A. The Staten Island Edison Corporation out, is expressed in kilowatts.

Q. When you come to Mechanic Street Substation we have a column designated local load. That is expressed in kilowatts, is it?

A. That is expressed in kilowatt amperes.

Q. And all the other columns showing general cable load, Carteret, Keasby and Metuchen is all expressed in amperes, are they not?

A. That is correct.

Q. Have you examined in the Mechanic Street Substation the recording instruments from which these instrument readings were taken?

A. I have.

Q. Can you explain to me what this is, Mr. Sibley?

A. That is a dial taken from a Weston Ammeter and is a facsimile of that of the ammeters indicating the amperes in the general cable circuits.

Q. Just what does this show?

A. The pointer moves across this scale, the position of which indicated the quantity of amperes flowing through the primary circuit.

Q. Now if there were amperes indicated on the ammeter of which I understand this is a face and the amperage was less than 50 are there any marks there to indicate those readings?

A. No.

Q. Then, if the amperage recorded on this ammeter, of which this is a face, were less than that, how can anyone determine the amperage?

A. It is impossible to determine with any degree of accuracy the amperes which would be flowing when the

pointer stood anywheres between zero and 50, which is the lowest division that the instrument maker has placed upon this scale.

Q. Now taking the column on this exhibit which shows the General Cable load and it is numbered (1), showing the amperage, how is that number made up? It is designated on the last sheet of this exhibit, is it not, sheet 7?

A. These readings are the sum of 6 ammeter readings.

Q. In other words, in the first column where you have amperes 135, that represents the sum of 6 ammeter readings. Does that mean there are 6 meters which are used to measure the amperage going out on that general cable load?

A. That is true.

Q. And I notice in this column a number of readings given as 60 and 75. That would mean there were 6 readings on 6 separate ammeters which, the indications are, the readings would be 10, is that right?

A. That is correct.

Q. Do you consider as an engineer that those readings which are expressed in amperes are in any sense accurate in this exhibit where such an instrument is employed?

A. No, these readings are very unreliable.

Q. Pure guesswork, isn't it?

A. Judgment on the part of the operator.

Q. Who sees the indicator flicker somewhere between zero and 50 and then writes something down?

A. That is correct.

Q. Is there any occasion or need in the Mechanic Street Substation for having any more accurate recordings?

A. No.

Q. Why is that?

A. It is the general practice between operating companies that feeders running from one substation to the other be supplied with an indicator so that in case one of the line wires should become open it would immediately be noticeable to the switchboard operator. In the case of General Cable Company, these instruments have no other purpose than just that. There are located in the General Electric Company Station, General Cable Company Station, the integrating watt-hour meters, from which the bills are calculated. These watt-hour meters are only read for billing purposes.

Q. And the company doesn't depend in any way upon these meters for its billing or for determining the quantity of energy which goes out to General Cable?

A. I would say they did not.

Q. And the same criticism which applies to General Cable applies to all these other readings which are expressed in amperes?

A. It applies to the ammeters on the transformers, readings of power for local distribution.

Q. Now, Mr. Sibley, these readings, what are they, do they express any quantity of energy that may or may not be taken, or what do they express?

A. They do not express energy. They indicate at any particular time amperes flowing in the primary circuit.

Q. They just register momentary flow?

A. The pointer follows the amperes in the primary circuit.

Q. And there is no recordation of the load or anything like that?

A. No.

Q. They are not designed to do that?

A. No.

Q. Then as a result of these readings would you say this exhibit was accurate or inaccurate in reaching the conclusions expressed therein?

A. The conclusions derived from these readings are very questionable.

Q. In making any such exhibit as here made up would you depend on any such readings as can be gained from that ammeter?

A. No.

MR. PAXSON: Now, if the Commission please, I don't care to introduce as an exhibit this piece of metal, but I would like the opportunity to later substitute a photostatic copy thereof. That is part of a valuable machine and I brought it for physical demonstration.

EXAMINER SPENCER: May I ask where it came from?

THE WITNESS: That particular dial came from one of the substations of the Metropolitan Edison Company System. It is identical to the dials on the Weston Ammeters indicating the amperes flowing in the General Cable circuits out of Mechanic Street.

EXAMINER SPENCER: Does counsel for the Commission have any objection?

MR. McALLISTER: Just a moment until I find out something about it, please. We have no way of identifying that, Mr. Examiner. If it is a photostat of the instrument installed down there I have no objection to that.

MR. PAXSON: Mr. Examiner, this man has just testified it is identical. We could not lift the Public Service machine and bring it and we could not take it apart. He has testified it is identical.

THE EXAMINER: Any objection?

MR. McALLISTER: Yes, Mr. Examiner, I object to the receipt of the dial out of a machine of Metropolitan Edison Company. If I had any way of verifying that, if there is any reason to know if that is the kind of machine that is running down there, if such testimony was going to be introduced, we had the superintendent of the, or the assistant division manager of the Public Service Electric and Gas Company here. He could have identified it as being similar to the dial in the face of that instrument. There was ample opportunity to establish that.

MR. PAXSON: Let me say, Mr. McAllister, there was not ample opportunity. You gave me no opportunity at all. We didn't even know this exhibit was going to be presented at that time. We had not read them, and we were given no opportunity to check, and I remember it, this witness departed on the afternoon of the day he testified. This Commission is not bound by any formal rules of evidence. This witness, whose credibility has not been impeached, says this is identical. It is not the same, but identical. It is perfectly proper evidence.

Of course I can understand why Mr. McAllister doesn't want it introduced.

MR. McALLISTER: As far as the instrument is concerned or anything else, I have no objection to putting it in, if it is a copy of the one that is down there, but to take a dial out of some other machine and photostat that and put it in, there is only one way I could determine it would be to send a man down there.

MR. PAXSON: Your men have made these readings and studied them. Let them get on and combat it.

MR. McALLISTER: They told me they paid no attention to the make of the machine or anything of the kind. It is not properly supported.

EXAMINER SPENCER: The Examiner will rule that a photostatic copy of this dial may be filed when properly certified as being an exact replica of the dial in use at this plant. I think they are entitled to that.

MR. PAXSON: No further examination.

EXAMINER SPENCER: Do you want to begin your cross-examination this afternoon, Mr. McAllister?

MR. McALLISTER: No, I think we might as well go over. We really could not do very much in the few minutes remaining.

EXAMINER SPENCER: Would it suit you to adjourn now and convene tomorrow morning at ten o'clock?

MR. PAXSON: Yes.

EXAMINER SPENCER: We will take a recess until ten o'clock tomorrow morning.

(Whereupon, at 4:15 o'clock p. m., an adjournment was taken until 10:00 o'clock a. m., Wednesday, October 5, 1938.)

Washington, D. C.,
Wednesday, October 5, 1938.

The hearing in the above-entitled matter was resumed, pursuant to adjournment, in Room 1201 Hurley-Wright Building, 1800 Pennsylvania Avenue, N. W., Washington, D. C., at 10:00 o'clock a. m.

Before:

Carroll B. Spencer, Trial Examiner.

Appearances:

As heretofore noted.

PROCEEDINGS

EXAMINER SPENCER: The hearing will be resumed. Gentlemen, yesterday just before recess there was a question under discussion as to the admission of a dial as an exhibit on behalf of the respondent and, at that time, I stated that a photostatic copy of the dial could be filed at a later date, if properly certified. With respect to that it will be necessary to fix a form of certification at the date of filing and at this time I will announce that final and complete ruling on that will be reserved until later in the day.

MR. PAXSON: As to the date when it will be filed?

EXAMINER SPENCER: As to the whole question. I want to give it further consideration. Call your witness, Mr. Paxson.

Whereupon

EDGAR DOW SIBLEY,

the witness on the stand at the time of adjournment, resumed the stand and testified further as follows:

Cross Examination

EXAMINER SPENCER: You may proceed with cross-examination, Mr. McAllister.

BY MR. McALLISTER:

Q. Mr. Sibley, in testifying yesterday regarding the interconnection at Wrightstown and New Lisbon, the record in some parts seems to indicate power at that point was supplied at that point by Jersey Central Power & Light Company, but I think you made it clear, did you not, that Jersey Central was the company that received the energy through that interconnection?

A. That was my intention.

Q. And by reference to the map, which is Respondent's Exhibit No. 1, you indicated that the energy to that interconnection came from the generating station of the Public Service Electric and Gas Company at Burlington, is that true?

A. It comes from the bus bar, the 26,400 bus bar.

Q. And then via the route you described, that energy is delivered to Jersey Central at the connection that is sometimes referred to as Wrightstown-New Lisbon or Wrightstown-Comical Corners?

A. That is correct. One meter is located close to Comical Corners and the other is located at the Wrightstown Substation.

Q. Is there a substation and generating plant at Burlington?

A. Yes, I believe there is.

Q. What is the capacity of that generating plant?

A. I was never in it.

Q. How about the substation, are you familiar with that?

A. No, I was never there.

Q. Do you know there is a substation there?

A. Yes.

Q. I am trying to get the facts. What is the situation there at Burlington which you say is the source of this energy?

A. I drove over to Burlington from Reading and picked up these two 26 KV lines as they left Burlington starting for this Comical Corners point. The bus bars in Burlington and the bus arrangement in Burlington and generating machinery there, I have no knowledge of.

Q. That is the extent of your knowledge regarding the source of this energy coming from this interconnection at Wrightstown and Comical Corners?

A. Yes, sir.

Q. In order that the record may be clear in that regard, your testimony is to be understood then as indicating the beginning of those lines as you observed them and your driving along and tracing them as best you could in that manner to the various points that you described? Is that true?

A. These two lines were observed to go in toward this substation and power house. I saw they went toward it. What was in the substation or power house I have no first-hand knowledge of.

Q. Or how the connection was made or anything regarding that, that would indicate what is the arrangement in the power house and substation?

A. I have no first-hand knowledge of that.

Q. On page 664 of the record, yesterday, Mr. Sibley, the following question was put to you:

"Q. I ask you as an engineer, Mr. Sibley,—"

MR. PAXSON: (interposing) What page is that, Mr. McAllister?

MR. McALLISTER: Page 664.

MR. PAXSON: Page 664?

MR. McALLISTER: Yes.

"Q. I ask you as an engineer, Mr. Sibley, is it possible as a matter of engineering for Jersey Central

Power & Light Company direct to route any power into Staten Island?"

MR. PAXSON: The word "to" should be in there.

BY MR. McALLISTER:

Q. The answer was "It is not." The next question was

"Q. Why not?"

and the answer which followed was this:

"A. The only power that can enter the Staten Island Edison Company's system through the interconnection would be governed by the adjustment of the governors on the steam turbines in the Livingston Generating Station of the Staten Island Edison Corporation."

Is it not a fact, Mr. Sibley, there are only two ways to prevent flow of power over the interconnection between Public Service Electric and Gas Company and Staten Island Edison Corporation, the first would be to open the switch at either end of the interconnection or to so adjust the generators on Staten Island Edison Corporation that there would at all times be a flow of energy from Staten Island to Public Service Electric and Gas Company?

A. One other exception, with the steam energy admitted to the turbine just equalling the electrical energy taken from the system. In that case there would be a balance and there would be no flow.

Q. But I think it has been testified here by various engineers, including Mr. Lytle, that it is impossible to maintain such a balance over any period of time. Isn't that true?

A. Yes, that is true.

Q. So that if you were to so adjust the operations between Mechanic Street and Staten Island Edison Corporation so that there would be no opportunity for the

flow from Mechanic Street to Staten Island Edison Corporation at any time whatsoever, the only means by which that could be accomplished would be one of the two means that I indicated in my first question. That is, so adjust the governors on the generating units at Livingston Station of the Staten Island Edison Corporation so that at any and all times there would be a flow of energy from Staten Island Edison Corporation to Mechanic Street Substation, or to open the switch at either end of the interconnection between Atlantic Street Station or the Mechanic Street Substation.

A. By stationing this indicating watt meter that shows the flow of power over the interconnection between Mechanic Street and Staten Island Edison Corporation at the turbine, the turbine operator could keep this flow of power very close to zero.

MR. McALLISTER: Will you read the question? Strike that.

BY MR. McALLISTER:

Q. I would like to have the question answered as it was put. If you recall it, will you kindly answer it. If you don't recall it, I will ask the reporter to read it.

A. Well, he had better read it.

EXAMINER SPENCER: Read the question.

(The reporter thereupon read the pending question as recorded.)

THE WITNESS: That condition would eliminate the slopover.

BY MR. McALLISTER:

Q. Is there any other means by which that can be accomplished other than the two which I have indicated?

A. I don't know, but that is the usual means.

Q. You can't think of any other way in which it can be accomplished, can you?

A. No, sir.

Q. Does the operator at the Livingston plant have any instrument which tells him what the flow of energy is between Atlantic Street Substation and Mechanic Street Substation?

A. No, sir.

Q. How does he operate then, in the adjustment of the generators in this manual control designed to even out, so to speak, the flow of energy in both directions over the interconnection?

A. There is an indicating watt meter in the load dispatcher's office. The load dispatcher's duty is to regulate the flow of electrical energy in the interconnection between Public Service Electric and Gas Company and Staten Island Edison Company. He makes his wishes known to the generating station by telephone.

Q. Have you finished your answer?

A. Yes, I am through.

Q. He has other duties, I presume, aside from watching that one meter?

A. He does.

Q. Is that a considerable part of his duties?

A. Well, of course, the first duty of a load dispatcher, the most important duty of the load dispatcher is to see that the customers are supplied with electrical energy.

Q. And this other matter is of secondary importance?

A. It is certainly secondary to seeing that all these consumers are adequately supplied.

Q. And as a matter of fact the operations between Staten Island Edison Corporation and Public Service Electric and Gas Company, according to the records which you have examined clearly indicate that no such effort is made by the operator to keep that needle on zero at any and all times, isn't that true?

A. Well, I think it would be impossible to keep the needle on zero at any and all times. You can keep it as near as you reasonably can, but I can't testify as to the alertness of the load dispatcher or the efficiency of the telephone communications.

Q. But even for a considerable period of time, the records which you have examined show the continuing, uninterrupted flow in one direction or the other over the interconnection between Staten Island Edison Corporation and Public Service Electric and Gas Company?

A. There are times there when it stays in one direction longer than I think it should stay there.

Q. For instance, how long?

A. Well, charts that I saw might read, say, for two hours. Here is a chart, here on this Exhibit No. 8, well it shows, practically speaking, on this particular chart, 20 minutes in one case and over here from 5, 10, 15 or 25, 25 minutes in another case.

Q. Beginning at 12:30 on that chart you have almost uninterrupted flow from Public Service Electric and Gas Company to Staten Island Edison Company up to some time after 2:00 a. m. There are slight lines above showing that there was an interruption of the flow in that direction, but that chart clearly shows that during that period the predominant flow was from Public Service Electric and Gas Company to Staten Island Edison Corporation, isn't that true?

A. That is true.

Q. And furthermore we know from the records that 3,000,000 kilowatt-hours a year flow over that interconnection from Public Service Electric and Gas Company to Staten Island Edison Corporation, that is true, isn't it?

A. That is true.

Q. So all this question of how you are going to stop it or whether you can stop that flow is meaningless when

you look at the record in this case, because it does exist, isn't that true?

A. Sure it exists.

Q. And the flow is there every day.

MR. PAXSON: What was that answer, I didn't hear it?

MR. McALLISTER: He says sure it exists.

BY MR. McALLISTER:

Q. And the flow is there every day?

A. Right.

Q. And the only exception to that is when there is cable trouble or something like that just as other lines in the system may be out for a period, and this cable is no exception. But, aside from that, this is an interconnection that is maintained for practical use and all of the incidents that attach to an interconnection of this kind in practical use can be found in the operation of this interconnection, isn't that true?

A. And all the incidents of what?

MR. McALLISTER: Read it.

(The reporter thereupon read the pending question as recorded.)

THE WITNESS: Well, I don't exactly understand that question.

BY MR. McALLISTER:

Q. The interconnection is there for practical use, is it not?

A. That is correct.

Q. And in the operation of that interconnection so that that practical use may be attained, the operators of Public Service Electric and Gas Company as well as the operators of Staten Island Edison Corporation realize that

a flow of energy that is incident to that kind of a connection will occur?

A. Oh, there is bound to be a slop-over. It can't be maintained exactly at zero.

Q. And when the officials of these two companies undertook to agree among themselves to establish this interconnection they knew then what was going to happen?

MR. PAXSON: Just a moment. I don't think that this witness knows what was in the minds of the officials of the two companies. He doesn't represent either of them.

EXAMINER SPENCER: I think you can ask what would be the result of the establishment of the interconnection.

MR. McALLISTER: Strike the question. I am not even trying to argue for it. I will rephrase it.

EXAMINER SPENCER: Proceed.

BY MR. McALLISTER:

Q. If you, Mr. Sibley, as an official of an operating company, decided to establish an interconnection with another operating system, you would realize and know at the time you made that interconnection that certain inevitable incidents of operation, including the flow of energy back and forth between the two systems would be the inevitable result of the operation of that interconnection with the switches closed at all times?

A. That is very true.

Q. And that is what occurs here?

A. Yes. That uncontrollable energy is bound to flow in a connection between two companies. You can't stop that.

Q. The control of the operator over this flow of energy between systems is an act on his part after the en-

ergy begins to flow in one direction or the other, isn't that true?

A. The chief operator sees it at the instant that it occurs. The adjustment on the governor is made of course subsequent to that time.

Q. Even if he does nothing but watch the needle there is an elapsed period of time before the adjustment can be made?

A. That is a true statement.

Q. And during that time there is a flow of energy in whichever direction it happens to be going?

A. That is correct.

Q. The interconnection maintained between Public Service Electric and Gas Company and Jersey Central Power & Light Company at South Amboy and Mechanic Street operates under substantially the same conditions as that which you have indicated prevail on the interconnection between Mechanic Street Substation and the Staten Island Edison Corporation?

A. I woould say in general that is true for every interconnection.

Q. Is it true that from Jersey Central Power & Light Company the predominate flow is to Mechanic Street Substation?

A. Yes, sir.

Q. And there is that variation, in that some 55,000,000 kilowatt-hours of energy are delivered by Jersey Central to Public Service Electric and Gas Company, and only 316,000 or some quantity of energy similar to that amount flows in the opposite direction. That creates a condition that is somewhat different, but at times of balance we have the same approximate conditions that prevail on the other interconnection to Atlantic Street, isn't that true?

A. All interconnections are about the same in that respect.

Q. There can be no question but that Jersey Central delivers this 55,000,000 kilowatt-hours of electric energy to Public Service Electric and Gas Company at Mechanic Street Substation?

A. No. That is delivered there.

MR. PAXSON: Just a moment, Mr. Examiner. You are asking him for a legal conclusion as to what constitutes delivery, are you not? That is a question of contract.

MR. McALLISTER: No, that is a question of fact.

MR. PAXSON: I object to the use of the word delivered. If you ask if it is received there, I have no objection. It gets there.

MR. McALLISTER: It gets there, yes.

EXAMINER SPENCER: You make a formal objection for the record?

MR. PAXSON: Yes.

EXAMINER SPENCER: Objection overruled. Let the record show counsel for respondent objects to the use of the word deliver in that question, and the objection is overruled and exception noted.

Proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. In the operation of two systems that are interconnected does energy flow according to the will of the operators?

A. It can flow according to the will of the operators, or it can flow by the action of the operator in accordance to his will.

Q. By that you mean by opening and closing various circuits you can direct that?

A. That is right.

Q. But if at a certain point there is a supply of electrical energy with various leads going out from that common point or bus, is there any way you can control the flow of that energy from that source?

A. No. If the source is maintained at standard voltage and frequency, the amount of power flowing from that source is dependent upon the amount required to operate motors, lights and so on.

Q. And under those circumstances the energy flowing from that source or bus will follow the line of least resistance?

A. Well, that would be true if there were multiple circuits. I imagine you mean least resistance to flow of electrical energy?

Q. That is true, generally referred to as impedance. That would be the correct term to use, would it not?

A. It would be representative.

Q. What other terms would you use to more adequately describe that resistance to the flow of electrical energy?

A. The flow of electrical energy between two common points divides in the two circuits, not necessarily proportionate to the impedance, as the impedance may change—the difference in the impedance would change the reactive KVA in these circuits. Electrical energy, or the flow of power in parallel circuits varies with different conditions, and may be nearer inversely proportional to the resistance of the two circuits.

Q. Are you referring to impedance there when you use the term resistance?

A. No.

Q. Can you state that answer in other language so that the ordinary layman or lawyer can understand it?

A. Well, that is one of the problems that might better be decided between the engineers, I guess.

Q. Might be. But can you state it in language the ordinary man can understand?

A. The electrical constants of these circuits change conditions. I have no objection to your assuming that the power would flow inversely proportional to the impedances. I don't think that is strictly true. I know it isn't true in all cases but I have no objection to that assumption.

Q. Generally speaking that is the manner in which practical operating men refer to this question of flow and consider the problem in determining the path by which energy will travel between two points?

A. I think there is a little confusion here. The impedances would determine the quantity or proportion of the amperes, but not necessarily of the energy, which is the kilowatts.

Q. But the kilowatts would flow according to the path you have indicated in the inverse proportion to the relation of the impedances in the circuits, isn't that true?

A. Well, of course amperes is not a sole function of energy. You must enter into that equation, the angle of lag and lead.

Q. That is true, but nevertheless, the consideration of the practical problem whether or not energy from a common point will flow out over available circuits does not require this complicated computation that you have referred to for that solution of that problem, does it?

A. Well, we will so consider it. As far as the direction of the flow is given in one of your exhibits, I have no quarrel about the computation of the Commission's engineers in it.

Q. What I have particular reference to, Mr. Sibley, is just this fact. Your exhibit which you have here, Exhibit 8, is it?

A. I believe that is correct.

Q. That shows a considerable flow of energy from Jersey Central Power & Light Company to Public Service

Electric and Gas Company at Mechanic Street Substation and simultaneously there is a flow from Public Service Electric and Gas Company to Staten Island Edison Corporation for a period from about 12:30 to 2:00 a. m., I mean 12:30, just past midnight until about 2:00 a. m. in the morning.

Now is there any way in which you can prevent the flow of energy that finds its way on the bus at Mechanic Street Substation from supplying in whole or in part the load going to Staten Island Edison Corporation as indicated on your chart?

A. Is there any what?

Q. Is there any way that you can prevent the energy coming from Jersey Central Power & Light Company and on to the bus at Mechanic Street Substation from following the path over the interconnection to Atlantic Street Substation of Staten Island Edison Corporation?

A. Well, as previously stated the power flowing from Public Service Electric and Gas Company to Staten Island Edison Company depends upon the condition of the steam turbines in the Livingston Power Station of the Staten Island Edison Company.

MR. McALLISTER: Will you read that answer for me, please?

(Whereupon the reporter read the preceding answer as recorded.)

BY MR. McALLISTER:

Q. Explain that answer, will you please, Mr. Sibley? The chart shows there is actually a movement from Public Service Electric and Gas Company to Staten Island Edison Corporation at that time. I think you will admit that that flows from Mechanic Street Substation. Isn't that true, Mr. Sibley?

A. That is true.

Q. Now how will your control of the turbines under that condition have anything to do with that flow of energy when it is actually existing and continues for a period of approximately two hours?

A. Well that energy flowed because there was not steam enough behind the turbines in the Staten Island Edison Power Station.

Q. That is true. We have gotten by that point. It is actually a fact the energy went over there from Mechanic Street Substation. That is shown by the chart.

A. That is correct.

Q. I am saying from the available supply on the bus at Mechanic Street Substation is there any way you can prevent the energy that is on that bus from Jersey Central Power & Light Company following the path to the connection of the Atlantic Substation of the Staten Island Edison Corporation?

A. Well, I don't know where that energy was actually generated that went through that interconnection between the Public Service Electric and Gas Company and Staten Island Edison Corporation.

Q. Will you answer the question, please? If you don't recall it I will have the reporter read it.

A. I believe the question was could anything be done to prevent this Jersey Central energy from going over to the Staten Island Edison Company. Is that the question?

Q. That is the question. At that time under the conditions shown in your chart between the hours that I indicated?

A. No, I don't know that anything could be done and I don't know anything was done.

Q. As a matter of fact it is not an unusual phenomena in the operation of electrical properties to have a source of power at one time originate at one station and at another time at some other station?

A. That is the usual method.

Q. That is the usual method?

A. Yes, sir.

Q. There is no reason for failing to recognize the fact that is recognized every day in the industry, is there, that when you have energy available on a bus and there are lead lines going out from that bus, that there is no way of preventing the energy on the bus from following those leads?

A. I believe I testified that was true.

Q. I think so, and it is a recognized fact, is it not? I mean it is not a matter that has been a question in your general, every-day operations.

It is not such a delicate question you need to enter into any great discussion or investigation, if you know the source of energy on a particular bus originated at a particular point or that that energy was available on that bus, there is no particular question in your mind in every-day operation as to the fact that a part of that energy may very readily flow out of that connection from that substation.

A. All of that is probably true.

Q. It is recognized, isn't it, you don't go into a long detailed determination when that first fact is known and established?

A. I said that was probably true.

Q. I believe you stated, Mr. Sibley, that when you examined the properties that were involved in this interconnection between South Amboy and Mechanic Street, you stated it was 7/8 of a mile from the generating plant at South Amboy, that is the Jersey Central generating station at South Amboy to the south bank of the Raritan River, but I was unable to find in the record the distance from there to Mechanic Street Substation. What is the length of those cables? I would like to get the continuing distance. You gave 7/8 of a mile to a point on the south

bank of the Raritan River. If you continue that into Mechanic Street what must be added to the 7/8 of a mile?

A. The submarine cable and land cable.

Q. Can you give that to me?

A. No, sir.

Q. I have a recollection somewhere of having heard someone say it was 93/100 of a mile from the plant in South Amboy to Mechanic Street. Now 7/8 of a mile would be 87-1/2/100 and so that would leave 5-1/2/100 of a mile for the balance, is that right?

A. Oh, no, those cables cross Raritan River, Raritan Bay.

Q. How much is that?

A. Well, I don't know the length of this cable. Any testimony I could give along that line would just be purely a guess.

Q. That is all right. I just thought, having made a study there that you would probably have that information.

A. No.

Q. There has been some testimony, Mr. Sibley, that the bus at Mechanic Street Substation is sectionalized and that by opening certain switches the bus may be operated in parts. I believe you stated that you had made a study of the operation of that substation. Is that true?

A. Well, I made an investigation of how certain readings were obtained from certain instruments. I am not familiar with the operation of the switches or the sectionalizing of the bus.

Q. Do you know whether or not they normally operate with switches on that bus closed so that it operates as a single unit?

A. I don't know how they operate that bus.

Q. Did you ever see it in operation at a time when the switches were open?

A. No. I was only there twice.

Q. Then the fact that the bus is sectionalized means nothing unless those switches are actually open so far as practical operation is concerned?

A. That is correct. The only thing I can base any opinion on would be the fact that the bus disconnecting switches, one set of bus disconnecting switches had been changed from the airbreak type to an oil type, I believe, in the last year or two.

Q. That doesn't change the operation of the bus as a unit?

A. No, that is true, it doesn't, but an oil switch is an expensive thing to install, and if there was no occasion to sectionalize the bus, I believe the disconnecting switches would have been left intact.

Q. And it was an additional safeguard, was it, that that was put in there?

A. Well, an oil-breaker permits the safe opening up of an electrical circuit under load which could not be safely accomplished through airbreak switches. In other words the installation of that oil switch would permit of opening safely that bus at any time it was the desire of the load dispatcher or the operator to so do it.

Q. Such an occasion would ordinarily arise in an emergency, let us say, isn't that true?

A. Why, I don't know why that oil-breaker was installed in that bus.

Q. Is the fact that switch is in there any indication that the bus is ever operated as parts?

A. Well, it is an indication in my mind that it may be desirable under certain conditions to operate it in parts or otherwise it never would have been installed.

Q. Did you find any records indicating such operation?

A. I found no such records.

Q. Did anybody tell you it was ever operated that way?

A. I didn't ask them.

Q. You weren't so much concerned then if you didn't pursue the investigation that would have given you the answer?

A. Well, when I went to that station I went there to inspect these readings and instruments from which they were obtained and to get a general knowledge of the station. I didn't pry into the operation of the station.

Q. Would you say the incidental mention of the fact that bus was sectionalized is a part of the description of the facilities, the same as a description of any other part of the facilities?

A. That oil-breaker in that bus shows it is possible to open it. Whether it was or was not open, I have no first hand information.

Q. On page 667 of the record, Mr. Sibley, in answer to various questions, the following appears where you were relating the circuits attached to the bus connected with general transmission circuits of Public Service Electric and Gas Company out from Mechanic Street. This question was put:

"Q. In what direction does the energy on those circuits flow?

"A. That is a matter of time and conditions and circumstances. It flows both ways over all those circuits.

"Q. In other words, electric energy will come in on those circuits to the bus bar and at other times electric energy goes away from those bus bars on those circuits?

"A. That is true.

"Q. Would you say that condition prevails every day, that is, flowing in each direction?

"A. I believe that is true.

"Q. Have you been in the substation when you have seen that occur?

"A. Yes, sir."

Will you state what you observed when you determined the direction of the flow?

A. Well, on October 1, 1938, at 4:07 p. m., I noticed that the indicating watt meter on the circuit running between Mechanic Street Substation and the Staten Island Edison Corporation—

MR. McALLISTER: (interposing) Now, Mr. Examiner,—

THE WITNESS: (interposing) Just one minute.

MR. McALLISTER: I have related my question to four circuits.

MR. PAXSON: You haven't let him answer the question.

EXAMINER SPENCER: Let him answer.

BY MR. McALLISTER:

Q. All right, go ahead. I related my question to four circuits and not the other circuits that may come out of that substation.

BY EXAMINER SPENCER:

Q. All circuits you are testifying about are the same he has asked about?

A. As I understood the question you asked me how I knew power flowed in both directions over the lines between Mechanic Street—

MR. McALLISTER: (interposing) Let the reporter read the question.

(The reporter thereupon read the question referred to as follows:)

"Q. On page 667 of the record, Mr. Sibley, in answer to various questions, the following appears where you were relating the circuits attached to the bus connected with general transmission circuits of Public Service Electric and Gas Company out from Mechanic Street. This question was put:

"'Q. In what direction does the energy on those circuits flow?

"'A. That is a matter of time and conditions and circumstances. It flows both ways over all of those circuits.

"'Q. In other words, electric energy will come in on those circuits to the bus bar and at other times electric energy goes away from those bus bars on those circuits?

"'A. That is true.

"'Q. Would you say that condition prevails every day, that is, flowing in each direction?

"'A. Have you been in the substation when you have seen that occur?

"'A. Yes, sir.'

"Will you state what you observed when you determined the direction of the flow?"

MR. McALLISTER: I think that the witness, reading all the time that I did, it would give him a clear indication of what I was talking about, but since it appears there may be some question about that I am going back one further question and put in one further answer. It says:

"Q. How many circuits attached to that bus are connected with general transmission circuits of the Public Service Electric and Gas Company, if any?

"A. There are four set circuits,—it should be such—"There are four such circuits, two running di-

rectly to Metuchen and one running to Metuchen by way of Keasby, and another by way of Carteret."

In putting my question I left out the answer, merely repeating the question.

BY MR. McALLISTER:

Q. Now those are the four circuits I am referring to and it is obvious your answer—.

BY MR. McALLISTER:

Q. What is your answer?

A. That is correct. There are no instruments on those four circuits which would tell which way the power was flowing out. It has to be approximated the best you can do it from what other things there are in the station. It was that that I was trying to describe to you when you interrupted me about the condition. You asked me was there a time I had seen it. I was trying to tell you that there was a case or two when I actually believed power was flowing one way and power was flowing the other way. I believe it flows in both directions in those circuits under different conditions and circumstances.

Q. Under those circumstances you may go ahead and answer the question. But I just wanted to hold you to the question instead of going off on a tangent and then being forced to come back to this.

A. Did you want me to give an instance where I observed power flowing one way and then in the other way and how I determined that?

Q. What I was concerned with particularly was the form of the question. The questions was:

"You have been in the substation when you have seen that occur?" and your answer was "Yes, sir".

I thought there was something happening in the station that you could take a glance at and see what was going on, that it was going in this direction and then in the reverse direction.

A. I did not mean to put it in that way, that there were instruments that you could observe.

Q. Even though I had that idea in mind and you determined it in some other manner, I would like to know how you did determine which way it flowed and what occurred actually as a support for what you said here in the record. I imagine this answer was based upon what you are now going to tell me you did see and what processes you went through to arrive at this conclusion. And then, of course, this would be your conclusion and opinion rather than something you had actually seen as an actual fact, wouldn't it? It is a deduction drawn from certain other things?

A. It is a deduction drawn from certain indications.

Q. Rather than an obvious fact that was there and observed without question?

A. Yes.

Q. If you will go ahead with your answer, I would like to have it.

A. On October 1, 1938 at 4:07 p. m., at a time when I was in the Perth Amboy substation known as Mechanic Street substation, the interchange of power between Mechanic Street and Jersey Central Power and Light Company was shown on the indicating watt meter to be zero. At the same time the indicating watt meter on the circuit running between Mechanic Street and Staten Island Edison Corporation indicated 1500 kilowatts to Staten Island Edison Corporation.

Regardless of what other load there was on the Mechanic Street bus, it was apparent that that electrical energy flowed from Metuchen to Mechanic Street.

On a previous occasion, which I believe was September 12, 1938, the power flowing from the Jersey Central Power and Light Company circuit toward Mechanic Street exceeded what I estimated to be the Mechanic Street local

load and that power flowing from Mechanic Street toward Staten Island.

Under these conditions it was apparent to me that power from the generators on the Jersey Central system was actually flowing from Mechanic Street to Metuchen.

Q. And simultaneously the flow from Mechanic Street substation to Staten Island Edison Corporation would come from the same source as the flow from Mechanic Street to Metuchen?

A. I think probably that is right.

Q. It could not be otherwise, could it? With energy flowing out from Mechanic Street to Metuchen over all available circuits and simultaneously it flowed to Staten Island Edison Corporation from Mechanic Street, you could not reach any other conclusion than that the energy which was on the bus at Mechanic Street which came from Jersey Central was the energy which flowed to Staten Island?

MR. WESTON: Pardon me, but the witness has not stated there was any energy flowing to Staten Island at that time.

MR. McALLISTER: Will you let him answer his own questions?

MR. PAXSON: He has a right to make objections, Mr. McAllister. We have a perfect right, it seems to me, at any hearing before the Federal Power Commission to offer objections to questions before they are answered.

EXAMINER SPENCER: You have a right to object.

What was the question? Did the witness answer the question?

MR. McALLISTER: He has answered the prior question.

EXAMINER SPENCER: What was the prior question?

MR. McALLISTER: Will you read the previous question, which he answered, and his answer?

(The following was then read by the Reporter:)

"Q. And simultaneously the flow from Mechanic Street substation to Staten Island Edison Corporation would come from the same source as the flow from Mechanic Street to Metuchen?

"A. I think probably that is right."

EXAMINER SPENCER: He did testify that energy flowed from Mechanic Street to Staten Island.

MR. WESTON: Regarding that given instant he was observing on September 12, 1938, I do not believe he did testify any energy was flowing in the Staten Island-Mechanic Street interconnection at all. He said energy was flowing back from Metuchen at that time.

MR. McALLISTER: Let us have the answer on the record, Mr. Examiner. Let's see what the witness did say.

EXAMINER SPENCER: Which question is that?

MR. McALLISTER: Let the record speak for itself.

EXAMINER SPENCER: Will you read the answer of the witness to the previous question, and also the question, that is, the one previous to the one you read?

(The following was then read by the Reporter:)

"Q. If you will go ahead with your answer, I would like to have it.

"A. On October 1, 1938 at 4:07 p. m. at a time when I was in the Perth Amboy substation known as

Mechanic Street substation, the interchange of power between Mechanic Street and Jersey Central Power and Light Company was shown on the indicating watt meter to be zero. At the same time the indicating watt meter on the circuit running between Mechanic Street and Staten Island Edison Corporation indicated 1500 kilowatts to Staten Island Edison Corporation."

MR. McALLISTER: It is very clear as to what he said, Mr. Examiner.

MR. WESTON: I withdraw the objection.

EXAMINER SPENCER: The objection is withdrawn.

MR. McALLISTER: Now, Mr. Reporter, will you read the last question?

(The following was then read by the Reporter:)

"Q. It could not be otherwise, could it? With energy flowing out from Mechanic Street to Metuchen over all available circuits and simultaneously it flowed to Staten Island Edison Corporation from Mechanic Street, you could not reach any other conclusion than that the energy which was on the bus at Mechanic Street which came from Jersey Central was the energy which flowed to Staten Island?"

THE WITNESS: At this particular time in this case it is probable that the energy did flow to Staten Island. We know it flowed to Staten Island from the Mechanic Street bus.

BY MR. McALLISTER:

Q. You mean to Staten Island from Mechanic Street bus?

A. Yes; to Staten Island from Mechanic Street bus. And if the sum of the Staten Island indicating kilowatts and the assumed value of the kilowatts of the local load

was less than the power supplied from Jersey Central Power and Light Company to Mechanic Street, the energy from Mechanic Street to Staten Island at that particular time may have come from generators on the Jersey Central Power and Light Company.

MR. McALLISTER: Will the Reporter read the answer of the witness, please? And, Mr. Sibley, will you please follow it?

I don't think all of the sequence that should be in it has been stated in line with the prior question. But will the Reporter read the answer, and will the witness follow it to see if he has that question answered?

(The last answer of the witness was then read by the Reporter.)

BY MR. McALLISTER:

Q. You are unwilling to go any further than to say "may have come" from that source?

A. The tools which we have to make these measurements with are not as good as they should be. Under such circumstances I do not want to make positive statements.

Q. But on the assumption which you made the conclusion which I stated must obviously follow? Isn't that true?

A. Well, if there were no other source to this Mechanic Street bus, then what you say is probably true.

Q. It is true, isn't it?

MR. WESTON: I object to the question because it is purely hypothetical. It assumes that is for a local load, which has never been shown one way or the other.

EXAMINER SPENCER: It is an assumption made by the witness.

The objection is overruled. You may proceed. An exception is noted.

THE WITNESS: It may have.

BY MR. McALLISTER:

Q. It would, would it not? If you have only one source of energy attached to a circuit on a bus—I mean only one source of energy on a bus to which is attached a circuit, it is obvious that energy flowing over that circuit from that bus must be energy from the source which supplies the bus?

A. That is true.

Q. You can't get away from that conclusion, can you?

EXAMINER SPENCER: He answered that is true.

MR. McALLISTER: I followed it up with another question.

EXAMINER SPENCER: All right, Mr. McAllister.

BY MR. McALLISTER:

Q. You can't get away from that conclusion, can you?

A. I believe that is generally true.

Q. Can you reach any other conclusion?

A. None that I can think of at this time.

EXAMINER SPENCER: Gentlemen, at this time we will take a ten minute recess.

(Thereupon a short recess was taken, after which the following occurred.)

EXAMINER SPENCER: Gentlemen, the hearing will be resumed.

BY MR. McALLISTER:

Q. Mr. Sibley, on page 688 of the record in answer to a question I asked you made an answer. The question was:

"Q. Mr. Sibley, can you trace or earmark a kilowatt? You are a professional engineer. Can you trace or earmark a kilowatt? Mr. Grimsley thought that was a crude question when I put it to him. Perhaps you will think the same thing about it. I will put the same question to you that I put to Mr. Grimsley."

Your answer was:

"A. I will answer the question in the same way that Mr. Grimsley did. If you have a direct circuit to a given point you can pretty well identify the kilowatts to the point where another circuit met it. But where you have two lines converging at one point the identity of the electric power and energy is lost."

Is it not a fact, Mr. Sibley, that under such conditions the relative proportions and the amounts delivered from each source in the common branch or circuits can be clearly established?

A. Will you state this problem again for me, please?

Q. Is it not a fact that under such circumstances as you described—

A. Just what circumstances?

Q. If you have a direct circuit to a given point you can pretty well identify the kilowatts to the point where another circuit met.

A. They can be identified that far, of course.

Q. Up to the point where they meet the circuits that far carry the energy that originates at both sources?

A. That is right.

Q. Now, they meet and join and another circuit continues on which carries the combined energy from the two sources?

A. Yes.

Q. Now, is it not a fact, that under such circumstances the relative proportions and amounts delivered from each

source as it is flowing in the common circuit can be clearly established?

A. I would say in general that is true.

Q. A further question beginning on page 668 is as follows:

"Q. Do you know what the interconnection between Staten Island Edison Corporation and Public Service Electric and Gas Company is used for?"

Your answer was:

"A. It is used to supply emergency power in both directions and economy power in both directions."

That connection is also used for the carrying of the incidental flow which is a necessary incident of the operation of the interconnection?

A. Is that a question?

Q. Yes.

A. The incidental flow, surely, flows over the same wire with the economy power and the emergency power.

Q. Mr. Sibley, will you please refer to your exhibit No. 6, which is identified in the record as Respondent's Exhibit No. 6?

A. Yes; I have it.

Q. Why is this chart constructed on such a small scale?

A. Well, there is no special reason. It could as well as not have been constructed on any scale.

Q. Can you read it?

A. Yes.

Q. Will you state for the year 1937 the quantity of energy received by Staten Island Edison Corporation from Public Service Electric and Gas Company as shown on the chart day by day in July 1937? Will you state those figures which represent the daily total kilowatt hours moving from Public Service Electric and Gas Company to Staten Island Edison Corporation?

MR. WESTON: Mr. Examiner, there is no real reason why every day in the year is to be shown. Let him pick out instances. There is no purpose in asking day by day. It would just prolong the hearing.

MR. McALLISTER: I am asking for one month only, 31 days.

MR. WESTON: Just one month?

MR. McALLISTER: Yes.

EXAMINER SPENCER: Will the witness answer the question, please?

THE WITNESS: And the month is July?

BY MR. McALLISTER:

Q. July, 1937. State the date—1st, 2nd and 3rd, and give the reading. That is the graph above the dark line marked zero.

A. On July 1, 1937 the upper line on the graph known as Respondent's Exhibit No. 6, indicating the 24 hour integration flowing from Public Service Electric and Gas Company to Staten Island Edison Corporation is read from the chart as follows:

8,000, 9,000, 9,000, 8,000, 8,000, 8,000, 11,000, 9,000, 12,000, 8,000, 8,000, 11,000, 9,000, 12,000, 8,000, 11,000, 12,000, 14,000, 7,000, 8,000, 11,000, 9,000, 6,000, 8,000, 8,000, 8,000, 10,000, 8,000, 5,000, 7,000, 14,000, 9,000, 8,000, 8,000, 7,000 and 8,000.

Now, Mr. Sibley, will you please read the same figures under the line for the same period representing the flow of energy from Staten Island Edison Corporation to Public Service Electric and Gas Company?

A. 9,000, 8,000, 8,000, 8,000, 8,000, 8,000, 7,000, 8,000, 9,000, 9,000, 6,000, 5,000, 6,000, 11,000, 12,000, 7,000, 10,000, 10,000, 11,000, 8,000, 9,000, 10,000, 8,000, 6,000, 12,000, 11,000, 9,000, 11,000 and 7,000.

Q. And you prepared this chart?

A. Yes, sir. I read the figures from the log sheets and one of our men put them on the paper.

Q. I show you Commission's Exhibit No. 19 and ask you if that exhibit shows the same information which you have attempted to set forth in graphic form on that chart which is Respondent's Exhibit No. 6 at least for the months and years shown on the exhibit. That one is limited to a shorter period than your chart, but for the period shown it is the same information that is presumed to be recorded of your chart, is it not?

A. It looks like it to me.

Q. It was identified by Mr. Bass as representing a true and complete record of the energy movement between the two companies over this interconnection. Have you any reason to question its correctness?

A. No, sir.

Q. I just assumed that it might be that you had taken yours from another source, when you were examining it as closely as you did. I may be entirely wrong.

A. As a matter of fact, I took it from another source. I took it from the records of the Staten Island load dispatcher there at Staten Island. But I assume that they are the same figures.

Q. There is no reason for them to vary?

A. Not that I know of.

Q. If you consider information of this character in tabular form there can be no question as to just what is shown? In other words, for a particular day if it is shown on here as 12,000, you can read that accurately and no two people will have different opinions as to what the movement of energy actually is?

A. That is right.

Q. When you attempt to read a chart on a scale as small as you have prepared or a scale as small as used in the preparation of exhibit No. 6 to which you were refer-

ring, Mr. Sibley, and inaccuracies result from an attempt to read that chart, it is obvious, is it not, that the tabular statement is more dependable?

A. Oh, I think so, because these were plotted from the tabular. This was prepared to graphically represent it. There is no difference between that tabular statement and this except in the way of their presentation.

Q. Except that this can be read correctly at any time and at all times, and that cannot be, Mr. Sibley, as to what the flow is on any particular day?

A. Well, I don't know how well I did it.

Q. You did pretty well, but it came a long ways from being accurate. The record will show that.

MR. PAXSON: You are not testifying, are you?

MR. McALLISTER: No; I am not. The record will show that. That is what I am referring to.

EXAMINER SPENCER: You may proceed.

BY MR. McALLISTER:

Q. And on the tabular form which is Commission's Exhibit 19, which shows the flow of energy stated in kilowatt hours from Public Service Electric and Gas Company to Staten Island Edison Corporation and from Staten Island to Public Service for each day that tabular statement will indicate more clearly whether there has been a balancing every day than your chart which is Exhibit No. 6?

A. To me a graph appeals more than figures do. It is true that this was plotted from the figures, and it is true that there might be a slight error in the plotting of these things; but the general problem that we wanted to portray here was to show that the ebb and flow of this incidental power practically balanced, not only each day but each month, so you can see those things with your eye.

Q. Why have you designed the chart with a median line which you marked zero?

A. Why did I what?

Q. Why did you design the graph with a median line which you marked zero?

A. I wanted to show the variation above this line which represented all of the power flowing from Public Service Electric and Gas Company to Staten Island Edison Corporation, and the line below showing the amount of power flowing from Staten Island Edison Corporation to Public Service Electric and Gas Company.

Q. Was there any thought in your mind of simulating the graph, which is exhibit 8, which shows the flow in one direction above the median line marked zero and the line below the line, the flow in the opposite direction?

A. These two charts are not really comparable. This chart marked Respondent's Exhibit No. 6 shows kilowatt hours integrated over a complete day, from midnight to midnight, while the graph on the chart shown as exhibit No. 8 indicates the flow of power at any and all times within the limits.

Q. What do you mean when you refer to Exhibit 6 and say that it shows integrated flow?

A. Integrated flow is the summation of all electric energy flowing over a circuit in any period which you choose to take.

Q. In other words, what you have done was to take the flow in one direction during a 24-hour period and added that all together?

A. That is right.

Q. And you have taken the flow in the opposite direction over a 24-hour period and added that all together?

A. The watt meters automatically do that. That is correct.

Q. Then you plot a point on each side of the line, one to represent the flow in one direction and one to represent the flow in the other direction?

A. That is correct.

Q. And then, having plotted all of those points, you draw a continuous line. You don't mean to indicate by the chart that ~~there is~~ a continuous flow in each direction at any and all times?

A. Oh, no; no, sir.

Q. That would be the conclusion to be reached if you plotted a curve about a median line on a chart similar to exhibit No. 8?

A. I don't think so. I have attempted to make that clear in the title, that it was the energy flowing in both directions. As a matter of fact, this chart is not energy. This is instantaneous power to get electrical energy. You must consider some period. Electrical energy is the time integral of power.

Q. That is right. But on exhibit No. 8 you have both the quantity and the time. If you want it computed it can be computed from that chart.

A. That is right.

Q. It may be a tough job, but it can be done, can it not?

A. Yes.

Q. Because you have both elements to determine the energy that flowed?

A. That is correct.

Q. But on your chart, which is exhibit No. 6, you have two continuous lines on either side of a median line, neither of which is in any way related to the other.

A. That is not exactly true.

Q. Why isn't it true?

A. Because both of them represent daily kilowatt hours.

Q. The one represents the flow in one direction and the other represents the flow in the other direction.

A. The total quantity which has flowed in the 24 hours in each case.

Q. And there may have been a dozen intervals or interruptions in the flow in each direction during that 24-hour period?

A. Interruptions?

Q. That is right.

A. Yes. The power has flowed one way and then the other.

Q. You have assembled the parts and put them together, you might say, on an algebraic equation to determine which is above and which is below?

A. Yes.

Q. And then you plotted it this way; but it doesn't tell any kind of a story as to what has actually transpired day by day?

A. Oh, yes; it does. It does not show the instantaneous values. It does not show how great any one hour has been, but it does show the energy, that is, the total energy which has passed in each direction each day.

Q. I show you Exhibit No. 19 which in tabular form for the year 1937 and for three months of 1938 shows the daily movement of energy in both directions between Mechanic Street Substation and Atlantic Substation, and I will ask you if there is anything on your chart in that period which is not shown by the tabular statement.

MR. PAXSON: Just a moment, please. Exhibit No. 19, Mr. Examiner, was not put in by us. Mr. Sibley is not qualified to state whether the statements contained therein are true or not. He does not know its contents. He knows generally what it purports to show. But he has already stated that he took his figures from Staten Island logs; and I understand these figures were taken from Mechanic Street logs. They may be or they may not be identical.

EXAMINER SPENCER: Is the witness prepared to answer the question?

I will overrule the objection and let him answer the question.

MR. PAXSON: An exception, please.

EXAMINER SPENCER: Exception noted.

MR. PAXSON: May we hear the question again?

EXAMINER SPENCER: Will the Reporter read the question, please?

(The question was then read by the Reporter.)

BY MR. McALLISTER:

Q. What is your answer, Mr. Sibley?

A. Yes; we have attempted to show on Respondent's Exhibit No. 6 the days and amounts of power other than the mere incidental flow.

Q. And to what extent have you shown any of that during the period shown on Exhibit No. 19?

A. Exhibit 19 covers a period from the first day of January, 1937 up and to the 31st day of March, 1938, inclusive. The chart known as Respondent's Exhibit No. 6 has included these readings with the exception that there is no reading shown after March 14, 1938.

We have indicated on this chart that some emergency or economy flow power occurred on the last few days of April, 1937, which I believe has not been shown on Exhibit No. 19.

Have I answered your question?

Q. Yes. But aside from that little showing of economy flow which you just mentioned is there anything else shown on your chart for that period which is not shown on Commission's Exhibit No. 19?

A. I believe I have stated the only exception.

Q. Would you throw away the tabular statement and rely upon your graph if you were required to determine day by day what was the flow in actual kilowatt hours of energy between the two companies?

A. No.

Q. You would rather rely upon the tabular statement for accuracy in that regard?

A. It is much easier to read than it is from the graph.

Q. It is more accurate?

A. I would say that it is more accurate.

Q. Looking at Exhibit No. 19, Mr. Sibley, in referring to your chart on page 673 and 674 you gave an answer which is recorded at the bottom of page 673, and apparently I did not catch the import of your answer, and I interposed this question:

"Will you repeat that answer, please?", and you answered as follows:

"The greater portion of the chart is incidental power, and it was drawn to show that the incidental power balances out each day, each month and each year."

Now, Mr. Sibley, does your chart show that the quantity of electric energy flowing in both directions, measured in kilowatt hours during each 24-hour period does balance out?

A. It does not balance out exactly, and I don't remember stating it that way. I believe I had some modifying word in there. Just before that didn't I state it probably more accurately?

Q. I will read that, going back several questions on page 673:

"Q. You are speaking now about the incidental power?

"A. This chart represents all power transferred over this interconnection.

"Q. But the parts blocked in solid black represent the economy and emergency flow?

"A. They do.

"Q. So the flow as shown by the other two lines represents incidental?

"A. The greater portion of the chart is incidental power, and it was drawn to show that the incidental power balances out each day, each month and each year."

Now, Mr. Sibley, I cannot realize that I understood the answer, or I could not, and then I said:

"Will you repeat that answer please?" And you came back and said:

"The greater portion of the chart is incidental power, and it was drawn to show that the incidental power balanced out each day, each month and each year."

A. Mr. McAllister, if you will please read just ahead of where you started to read or where the question was first asked me, I believe I had it stated correctly.

Q. Here is the record, Mr. Sibley. Will you please point it out?

A. In this portion, on page 673 of Mr. McAllister's copy of the transcript of testimony, he has shown in red there the question which I believe I answered.

Quoting from the section outlined in red:

"This chart shows that day by day and month by month and year by year the amount of power transferred in one direction is practically equal to the amount of power transferred in the opposite direction."

And I am sorry that I did not use the word "practically" in the other two instances, because that is what I intended to do.

Q. What you intended to indicate by that is exactly what is shown on Exhibit 19 for the period that is covered by Exhibit 19?

A. Yes, sir. That is exactly what I intended to show.

EXAMINER SPENCER: Gentlemen, at this time we will recess until 2:00 o'clock.

(Whereupon, at 12:30 o'clock p. m., a recess was taken until 2:00 o'clock p. m.)

AFTER RECESS

(The hearing was resumed at 2:00 o'clock p. m., pursuant to recess.)

EXAMINER SPENCER: The hearing is resumed.

Whereupon

EDGAR DOW SIBLEY

the witness on the stand at the time of recess, resumed the stand and testified further as follows:

Cross Examination (Continued).

BY MR. McALLISTER:

Q. I presume, Mr. Sibley, that you are familiar with the contract between Jersey Central Power & Light Company and New Jersey Power & Light Company which bears date of February 5, 1937, and which was introduced in evidence by the respondent, I believe, as Exhibit No. 4?

A. I am not familiar with the details of that contract.

Q. Are you familiar with that provision of the contemplated arrangement by which an additional transmission line is projected or under consideration to connect the Jersey Central Power & Light Company and the New Jersey Power & Light System more intimately than they are now tied together?

MR. PAXSON: Just a moment. In the first place, Mr. Sibley hasn't testified about any contract. It is not proper cross-examination by any stretch of the imagination. Mr. Sibley is here as an expert witness and he has said he isn't familiar with the contract and I object to the question.

EXAMINER SPENCER: In response to the question whether he was familiar he said he was not in a general way.

MR. McALLISTER: I think if you will read the answer—

EXAMINER SPENCER: (Interposing) Your question is whether he is familiar with a particular part of the contract.

MR. PAXSON: The contract speaks for itself.

EXAMINER SPENCER: Let the witness answer that question as to whether he is familiar with a particular part of it.

THE WITNESS: I am not.

BY MR. McALLISTER:

Q. Do you know anything about that projected line between the property of the New Jersey Power & Light Company and the property of the Jersey Central Power & Light Company?

MR. PAXSON: Objected to on the ground that anything which is projected for the future or is prospective has absolutely no bearing on the determination of the issues before us as to the public utility status of Jersey Central Power & Light Company on March 14, 1938.

EXAMINER SPENCER: Mr. McAllister, what is your theory as to the competency of that testimony bearing on the question at issue?

MR. McALLISTER: Well, he has testified rather extensively as to the generation of Jersey Central Power & Light Company and the facilities of New Jersey Power & Light Company, the interconnections between the companies, the interconnection between the Jersey Central Power & Light Company and the Public Service Electric and Gas Company. He has come forward as a witness on behalf of the respondent. He has made various studies relating to this interchange, has expressed opinions as to the flow of energy between these interconnections, says they are based on studies. All of that relates to and is a background for the question that I have put to him, and that is a question of fact whether he is familiar with the various things I have designated. If he isn't, he can say so.

EXAMINER SPENCER: These lines you refer to are provided for in the contract?

MR. McALLISTER: Yes.

EXAMINER SPENCER: I will hear you, Mr. Paxson.

MR. PAXSON: I object on another ground, that Mr. Sibley doesn't represent either party to the contract. He doesn't work for either and he can't state what their future plans or intentions may be, or what is in their minds. Mr. Crumley has been very thoroughly interrogated on that side of the case and if there is any effort to impeach that testimony of Mr. Crumley, I don't know it. At any rate, Mr. Sibley isn't competent to do it as anything he may say is pure hearsay.

MR. McALLISTER: May I be heard?

EXAMINER SPENCER: Yes.

MR. McALLISTER: May I ask the witness before I make my statement as to what his connections are with these two companies?

EXAMINER SPENCER: Yes, you may proceed.

BY MR. McALLISTER:

Q. I believe you stated you were employed by Utility Management Corporation?

A. That is correct.

Q. What is the relation between Utility Management Corporation and New Jersey Power & Light Company?

A. New Jersey Power & Light Company, we do work for New Jersey Power & Light Company.

Q. Under contract?

A. I believe that is true.

Q. Doesn't that contract provide you are in fact managers of the operation of this property?

MR. PAXSON: Objected to. He has asked for a legal conclusion. If he wants to know, the contract speaks for itself. I don't think it so states, incidentally.

BY MR. McALLISTER:

Q. Do you have a copy of that contract, Mr. Sibley?

A. No, sir.

Q. Can you procure one?

A. I never saw it.

Q. You never saw it?

A. No.

Q. You know that a contract exists?

A. Well, only through hearsay. I understand there is some arrangement. My part of the work in our organization is the electrical engineering end of it.

Q. If that line is built will it not be designed under your supervision?

MR. PAXSON: Objected to.

EXAMINER SPENCER: Let me ask the witness this question.

MR. PAXSON: What will happen in the future he may not know.

BY EXAMINER SPENCER:

Q. Do you know anything about the lines of which he speaks?

A. No, sir.

EXAMINER SPENCER: All right.

MR. McALLISTER: I would like to have him answer that whether under the contract—

EXAMINER SPENCER: (Interposing) He says he doesn't know.

MR. McALLISTER: On the transmission line to connect the New Jersey Power & Light Company and the Jersey Central Power & Light Company would the design of that line come under his direct supervision.

MR. PAXSON: I have my objection as I have already stated, he can't tell whether he will get something in the future or not.

EXAMINER SPENCER: All right. Objection overruled. Can you answer the question?

THE WITNESS: When we are given work to do by these operating properties then we start to do our engineering on it. If such a line was to be built,—

BY EXAMINER SPENCER:

Q. (Interposing) Did you say if such a line was to be built?

A. Yes, if such a line was to be built I suppose I would have something to do with the engineering of it, the specifications of the line and so on.

BY MR. McALLISTER:

Q. That is really a part of your job, isn't it?

A. Yes, we build transmission lines, design and build them.

Q. I mean of one or more companies which, under your contract, which under the contract with Utility Management Corporation come within the provisions of that contract so far as engineering, accounting, management and so on are concerned, as I was saying, when a company with such a contract with Utility Management Corporation undertakes to construct an important transmission line, then it becomes your duty, and it is one of your functions as chief electrical engineer of Utility Management Corporation to approve or lay out the design to be followed in the construction of that important interconnection?

A. We usually give advice to the operating companies on new work, sometimes.

Q. Let me put it this other way. Isn't it a fact that you design in your own offices rather than in the offices of the operating company?

MR. PAXSON: Pardon me, are you talking generally?

MR. McALLISTER: The construction—

EXAMINER SPENCER: (Interposing) You are referring—

MR. PAXSON: (Interposing) I want to know.

MR. McALLISTER: I am asking if it isn't a fact under the contract,—

MR. PAXSON: (Interposing) What contract?

MR. McALLISTER: If you will just keep quiet a minute I will finish the question.

EXAMINER SPENCER: Proceed.

BY MR. McALLISTER:

Q. Isn't it a fact under the contract between New Jersey Power & Light Company and Utility Management Corporation that you as chief electrical engineer are called upon to design and supervise the construction of important inter-connecting transmission lines between New Jersey Power & Light Company and any other utility with which they will be connected?

MR. PAXSON: Objected to. He has already testified he isn't acquainted with the contract.

MR. McALLISTER: He knows this question. He can answer this question.

EXAMINER SPENCER: Objection overruled and exception noted.

THE WITNESS: I have no knowledge of the contract.

BY MR. McALLISTER:

Q. As a practical matter when a subsidiary of—strike that question.

As a matter of fact, Mr. Sibley,—

Strike the whole thing again.

Mr. Sibley, what are your functions as chief electrical engineer for the Utility Management Corporation?

A. Well, they vary. I am at the call of the sponsors of the properties, the group managers of the properties, the engineering office in New York on various problems that come up. When a property desires to do some new work, it makes out a requisition for it, submits drawings of it, and I take those drawings and try to determine whether the work will be a good job when it is done, whether the cost will be at least consistent with good work. The detailed engineering of any major generating station which we build, the electrical equipment installed in that generating station, is usually designed under my direction. We act

both as consultants, and when we act as consultants we act for the properties. They have a perfect right to call us in and ask us for our opinion and when we have an explicit job like the construction of a large generating station, that is always done within the organization.

Q. What authority has one of the operating properties to which you have referred, what authority do they have to engage in additions and betterments without the approval of the Utility Management Corporation?

MR. PAXSON: Objected to. He can't speak for the operating properties as to their authority.

EXAMINER SPENCER: Objection sustained. Mr. McAllister, if you will confine your questions to these corporations that are involved here, perhaps we can make more progress.

MR. McALLISTER: It is a known fact, Mr. Examiner, that the contracts with the Utility Management Corporation are all identical.

EXAMINER SPENCER: All what?

MR. McALLISTER: They are all identical between operating properties. They may be different in dates, but the substance of the contracts are the same.

MR. PAXSON: I object to that statement and ask it be stricken. Mr. McAllister is not testifying. As a matter of fact I know the statement to be untrue.

EXAMINER SPENCER: The statements of counsel do not go in the record as evidence in any event.

BY EXAMINER SPENCER:

Q. Mr. Sibley, let me ask you this question, please, sir.

Does Utility Management Corporation have any control over extensions, improvements or betterments that the New Jersey Power & Light Company or the Jersey Central Power & Light Company may wish to make?

A. It may. To be truthful, I am an electrician and I am not familiar with the management. We are really the engineering division of this Utility Management Corporation and up until a few months ago we were strictly the Gilbert Organization, and at that time I had no knowledge of what the Utility Corporation operated and today I only have that knowledge by hearsay. I go in and do my work and I don't know much about the contractual relations.

MR. AUTENRIETH: Mr. Examiner, I think unintentionally Mr. Sibley included the Jersey Central. We have nothing to do with them.

THE WITNESS: Did I say that?

EXAMINER SPENCER: I think maybe I did that inadvertently.

BY MR. McALLISTER:

Q. You stated you were Vice President of Utility Management Corporation?

A. That is right, in charge of engineering.

Q. In the performance of your duties in that position do you mean to say that you do not know the extent of your authority in connection with electrical construction by New Jersey Power & Light Company?

A. No, I don't know how far my authority goes. We are asked for our opinions and we submit reports and we make investigations, and we do work as requested by the properties.

Q. In other words, you mean to say New Jersey Power & Light Company determines whether or not this line will be built entirely independent of Utility Management Corporation?

A. I imagine they would be the preliminary doping.

Q. Would they have the final judgment and say whether the line would be constructed or not?

A. I don't suppose they would if there was a large amount of money to be spent.

BY EXAMINER SPENCER:

Q. To your knowledge has this matter been presented to your company, the matter of extending the line?

A. I have no knowledge of it.

BY MR. McALLISTER:

Q. Then, I presume, Mr. Sibley, we are to understand you as saying upon the record in this case that you have no knowledge of the extent of your authority or the authority of Utility Management Corporation over the design or construction of a transmission line connecting New Jersey Power & Light Company with Jersey Central Power & Light Company?

MR. PAXSON: Objected to. He has already stated he didn't know there was such a line to be constructed.

EXAMINER SPENCER: He has testified he knew nothing of the contract or the line had not been presented to his company or to him.

MR. McALLISTER: I went further than that. I just want him to answer that question and we will then understand whether or not he knows the limits of his authority and the authority of Utility Management Corporation by whom he is employed, in so far as that contract might determine his authority, or the authority of Utility Management Corporation over the design or construction of a transmission line from New Jersey Power & Light Company to some other operating public utility.

Now he knows that or he doesn't know it, and he can state his answer very easily.

MR. PAXSON: The Commission has no jurisdiction over Jersey Central.

MR. McALLISTER: I intended to say New Jersey Power & Light Company and I didn't think I put in Jersey Central.

EXAMINER SPENCER: Answer the question.

MR. PAXSON: Objected to for the reason stated.

EXAMINER SPENCER: Overrule the objection.

THE WITNESS: I do not know the authority that Utility Management Corporation, to what extent the authority of Utility Management Corporation would go over the construction of transmission lines on behalf of the New Jersey Power & Light Company.

BY MR. McALLISTER:

Q. Does your answer extend to the design or construction as the question was put?

MR. PAXSON: Same objection.

THE WITNESS: Well, I am trying to make myself clear, the way I work.

MR. McALLISTER: Mr. Examiner, I ask the question be answered and then the witness explain it as he sees fit.

EXAMINER SPENCER: All right, Mr. Sibley, if you can answer the question yes or no, you may do so, and then explain your answer.

BY MR. McALLISTER:

Q. The original question included and comprehended design and construction of transmission lines. Your answer limited it to construction. I now ask you if your

answer was intended to include design or would it be the same insofar as my primary question related to design?

A. I don't know how far our authority extends.

Q. Your authority, you are referring to your individual authority or are you referring to the authority of Utility Management Corporation?

A. I am referring to the authority I know about as an electrical engineer on the Utility Management Corporation's staff.

Q. Am I to understand from your answer that you don't know individually the extent of your authority as Vice President and Chief Electrical Engineer of Utility Management Corporation over the design or construction of transmission lines by New Jersey Power & Light Company?

A. Yes, that is a true statement. These operating utilities request us to make reports and investigations and do work. How much authority we have to insist that lines are built in accordance with your recommendations, I do not know. In fact, I have seen lines built against possibly our recommendations.

Q. You said up until a few months ago you were employed by the E. M. Gilbert Engineering Company. Is that true?

A. That is correct.

Q. Are you familiar with the contract that E. M. Gilbert Engineering Company has with the New Jersey Power & Light Company?

A. No, sir.

Q. You don't know anything about the terms of that contract?

A. No, sir.

Q. Do you know as a matter of fact, Mr. Sibley, that under the terms of that contract a certain percentage on all construction by New Jersey Power & Light Company is charged and is to be paid by New Jersey Power

& Light Company to E. M. Gilbert Engineering Company?

A. Only through hearsay. I have never seen the contracts and never been explained to me.

Q. As a practical matter you know that is done, isn't that true?

MR. PAXSON: Objected to. He says he has no knowledge. That is pure hearsay.

MR. McALLISTER: As a practical matter I am asking him as a matter of fact if he doesn't know that is done.

MR. PAXSON: I persist in my objection for the reasons given. He says all he knows is hearsay.

EXAMINER SPENCER: You are referring to the contracts?

MR. McALLISTER: I am not referring to the contracts. I am saying as a practical everyday matter, does he not know that a certain percentage is added to the construction cost as compensation to E. M. Gilbert Engineering Company for supervision and other work which under the contract they are required to supply.

EXAMINER SPENCER: You can answer the question.

A. Under the E. M. Gilbert Engineering organization I held the position as Vice President in charge of Electrical Engineering. We had a Vice President in charge of mechanical engineering and a Vice President in charge of accounting, and he was the one that always handled those things.

MR. McALLISTER: I ask that the question be read by the reporter and that the witness be directed to answer the question as put.

EXAMINER SPENCER: Can you answer the question, Mr. Sibley, yes or no? As a matter of practice are these things occurring under the contract, do you know.

MR. McALLISTER: I didn't say under the contract. I said as a matter of fact, as a practical matter, does he not know that that particular percentage is applied and added to the cost of construction on the New Jersey Power & Light Company?

MR. PAXSON: What percentage?

MR. McALLISTER: Whatever it is, 1½ or 2 per cent.

BY EXAMINER SPENCER:

Q. Do you know, Mr. Sibley?

A. No, I am not sure of it.

Q. Can you answer the question yes or no, that it is added or not added as a matter of practice?

A. There is in our estimates we make out, I believe there is something added, but I don't know how much it is.

BY MR. McALLISTER.

Q. You are not referring now to the percentage that is added to take up errors in calculations and so on, 10 percent added to cover additional small items that may not be taken into consideration in the estimate, do you? It isn't that percentage?

A. No, that isn't the percentage. There is something else I don't know what it is.

Q. You mean to say on the stand here today that the E. M. Gilbert Engineering Company on construction work performed by or for New Jersey Power & Light Company makes and collects a charge, a percentage charge, based upon the cost of that construction work?

A. They may, but I don't know what it is.

Q. I am asking you as a fact if they do do it, do you mean to say here today that you do not know whether that is a true statement of fact or not?

A. Well, as a matter of fact I don't believe that I personally have done any electrical work for New Jersey Power & Light Company for quite a while. The last large work we did was on the Gilbert Station and that was handled by the mechanical engineer.

MR. McALLISTER: I ask the question be read and the witness be directed to answer the question.

EXAMINER SPENCER: Read the question.

(The reporter thereupon read the two preceding questions and answers thereto as recorded.)

BY EXAMINER SPENCER:

Q. Now, Mr. Sibley, can you state whether or not that is a fact?

A. I believe a charge is added, your Honor, but I don't know how much.

EXAMINER SPENCER: All right, proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. Mr. Sibley, are you consulted by New Jersey Power & Light Company as to means by which integration of operation of that company with other companies closely associated with New Jersey Power & Light Company through the Associated Gas and Electric Company,—read that question, I have got myself twisted up.

(The reporter thereupon read the question as propounded.)

BY MR. McALLISTER:

Q. Can be accomplished?

MR. PAXSON: Objected to as involving a conclusion. I don't know what closely associated means. That certainly brings in a legal conclusion.

EXAMINER SPENCER: How does that bear on the question of public utility status of this Jersey Central Power & Light Company?

MR. McALLISTER: I will name the companies.

EXAMINER SPENCER: I want to know.

MR. McALLISTER: I will establish it very clearly and am perfectly willing to have an understanding if I don't establish it you can strike the whole thing physically.

MR. PAXSON: I don't know what the purpose is. I would like to have an offer. You are going far afield as usual.

MR. McALLISTER: I am not far afield.

MR. PAXSON: Well, you are.

MR. McALLISTER: This witness has testified about the connections of this company with Philadelphia Electric Company, Pennsylvania Power and Light Company, Staten Island Edison Corporation, Metropolitan Edison, and I don't know how many more. Now I am asking him a question as to whether or not New Jersey Power & Light Company in determining whether or not there shall be, I asked him whether or not he is consulted in determining whether or not New Jersey Power & Light Company shall be integrated with other companies in Associated Gas and Electric System.

EXAMINER SPENCER: Let him answer.

MR. PAXSON: Objected to unless he defines what he means by integrated. I used a little simple word, such as relationship, and he insisted on my defining that yesterday and I tried to.

MR. McALLISTER: Oh, it is a simple term, tied

together for operation. I am satisfied with that definition. It may mean more.

EXAMINER SPENCER: All right, proceed. You want an objection, Mr. Paxson?

MR. PAXSON: Yes, I object.

EXAMINER SPENCER: Note the objection of counsel for the respondent. The witness may proceed to answer that question.

THE WITNESS: I have no recollection of the New Jersey Power & Light Company requesting any information from me concerning the construction of new transmission lines to integrate with some other company.

BY MR. McALLISTER:

Q. Does any other person in the Associated Gas & Electric System—

MR. PAXSON: (interposing) Objected to unless he defines person. I myself don't know what he means by person, whether an individual or—

BY MR. McALLISTER:

Q. (interposing and continuing)—consult with you in connection with any plan of integration which involved New Jersey Power & Light Company with other companies in the Associated Gas and Electric System in the states of New Jersey and New York?

A. I have discussed in general some interconnections, but nothing so far has been definitely determined or decided as far as I know.

Q. Well, to be more specific, the application filed on behalf of New Jersey Power & Light Company with the securities and Exchange Commission, File No. 46-98-1-1, under date of April 11, 1938, sets forth on page 7.

MR. AUTENRIETH: Does it show who filed it?

MR. McALLISTER: New Jersey Power & Light Company. The following:

"Applicant is further advised that Jersey Central Power & Light Company has available excess generating capacity of approximately 55,000 kilowatts. Applicant is also advised that Staten Island Edison Corporation, which is an indirect subsidiary of NYPANJ Utilities Company through the ownership of its voting stock by New York State Electric and Gas Corporation, a direct subsidiary of NYPANJ, can be connected by construction of a short transmission line with the generating facilities of Jersey Central Power & Light Company at South Amboy, New Jersey. This will make available to Jersey Central Power & Light Company an opportunity to dispose of electrical power at wholesale to Staten Island Edison Corporation, utilizing therefor a portion of its present excess generating capacity and thus giving to Jersey Central Power & Light Company additional earnings available for dividends on its common stock, and furnish Staten Island Edison Corporation with a source of additional power."

Further, on page 8, in the same application, the third and fourth paragraphs on page 8 of that application, the following appears:

"The electric properties of applicant"—that is New Jersey Power & Light Company—"and the Staten Island Edison Corporation are not now interconnected by virtue of facilities owned and operated by either company and the acquisition of the common stock of Jersey Central Power & Light Company as herein contemplated will make possible the direct interconnection of Staten Island Edison Company and of the applicants through the medium of the transmission lines of Jersey Central Power & Light Company, thus

bringing together into a geographical integration a public utility system, the subsidiaries of NYPANJ Utilities Company.

"Attached hereto as Exhibit H is a map showing the location of the properties of applicant, Jersey Central Power & Light Company, and the Staten Island Edison Corporation, showing their principal electric transmission lines in the areas in which gas is distributed."

In a statement contained in their amendment filed under date of May 5, 1938, on page 5 of that amendment, which is amendment No. 2 to the application that I read from in the first instance, it appears in tabular form on the bottom of the page, a tabulation or estimated minimum earnings applied to Jersey Central Power & Light Company common stock and estimated value thereof, which sets forth the present earnings on a twelve months basis. Then as the second item in that tabular statement, the following appears:

"Estimated increase in earnings which would result on the utilization of unused capacity," and opposite that statement and under a top heading of total earnings available of Jersey Central Power & Light Company appears the figure $400,000, and in the last column of this tabulation the capitalization value at 6 per cent, $4,500,000. As I read the statement it means—

MR. PAXSON: Objected to as a conclusion. He is purporting to read something and says it means something. He is not testifying.

EXAMINER SPENCER: Objection sustained.

MR. McALLISTER: Well, I have identified the item, Mr. Examiner, and at this time—

MR. AUTENRIETH: Wait a minute, is there a question pending?

MR. McALLISTER: There is no question.

MR. AUTENRIETH: I move everything that has been read be stricken.

MR. McALLISTER: I will ask a question.

MR. AUTENRIETH: Wait a minute.

EXAMINER SPENCER: All right.

MR. AUTENRIETH: It is not a declaration by Jersey Central Power & Light Company, it is the New Jersey Power & Light Company. We are not parties to it in any sense. Furthermore it seems to be a prophecy of something that is going to happen in the future. I think it should be stricken from the record.

EXAMINER SPENCER: We will see what question Mr. McAllister wants to ask.

MR. PAXSON: Pardon me. I want to add my objection because on its face it shows it is something filed in April, 1938, and is purely prospective and can have no probative value in determining the status on March 14, 1938 of Jersey Central Power & Light Company.

EXAMINER SPENCER: Proceed, Mr. McAllister.

MR. AUTENRIETH: He said he had another question.

BY MR. McALLISTER:

Q. Mr. Sibley, did you have any part in the laying out of the plan for the integration set forth in the application to the Securities and Exchange Commission of which I have read a part?

MR. AUTENRIETH: I think if that question is based upon what has been read into this record, the question is improper so far as the Jersey Central Power & Light Company is concerned, because here we have read from a voluminous report a declaration by another company and unless there is some action ruling it out or letting it remain, that stands uncontradicted.

EXAMINER SPENCER: I will make a definite ruling.

MR. PAXSON: We have asked for an offer of proof.

MR. McALLISTER: Let's see what the witness answers.

MR. PAXSON: We now ask for an offer what Mr. McAllister proposes to show by that question. It certainly is no part of any proper cross examination on anything that has been brought out on direct examination of Mr. Sibley by the farthest stretch of the imagination.

EXAMINER SPENCER: Mr. McAllister, did you frame your question?

MR. McALLISTER: Yes, I did, Mr. Examiner.

EXAMINER SPENCER: Read the question, Mr. Reporter.

(The reporter thereupon read the pending question as recorded.)

EXAMINER SPENCER: Just a moment before you answer. The Examiner will permit the statement read in that record to remain in this record for the purpose of identifying a particular transaction upon which Mr. McAllister based a question directed to the witness as to his participation, if any, in that transaction.

As to the Jersey Central Power & Light Company, from the record of the Securities and Exchange Commission, that will not be permitted to stand in this record.

MR. McALLISTER: Mr. Examiner, may I be heard on that question?

EXAMINER SPENCER: You may.

MR. McALLISTER: The Jersey Central Power & Light Company came in here as intervenors.

EXAMINER SPENCER: Yes.

MR. McALLISTER: And filed before us their application to become a party to the proceedings. They have no standing apart from the proceeding that was instituted. They have no individual rights apart from the rights of the others. They can be heard and participate, but they have no issue separate and distinct from the respondent.

EXAMINER SPENCER: Does the application filed with the Securities and Exchange Commission refer to the Jersey Central Power & Light Company as a party, or is the Jersey Central Power & Light Company a part to it?

MR. McALLISTER: I don't know.

MR. AUTENRIETH: We are not parties.

EXAMINER SPENCER: Will you look and see. You have the record there.

MR. McALLISTER: I don't have the record. I have a file which carries the application of New Jersey Power & Light Company in which they seek to acquire the stock of the Jersey Central Power & Light Company, and in the course of their application, stating under oath the reasons they set forth as jus-

tifying their claim that the acquisition is in the public interest. They set forth these various matters which they contend establish the fact that permission from the Securities and Exchange Commission or a granting of authority by Securities and Exchange Commission would be in the public interest. Now I presume if Jersey Central Power & Light Company has an interest in the matter they can intervene.

MR. AUTENRIETH: We haven't seen that and are not parties to it. I object to the form of the proof.

EXAMINER SPENCER: I think the Jersey Central Power & Light Company can not be bound by what the New Jersey Power & Light Company has said in that petition unless it appears that they are parties to it, and my ruling will stand on that. Now the witness may answer the question.

THE WITNESS: I never saw this application before.

BY EXAMINER SPENCER:

Q. That wasn't the question before. His question was whether or not you were consulted about any of that transaction or participated in the preparation of the plan.

BY MR. McALLISTER:

Q. Which is set forth in this application.

A. As I remember there was a statement there like $400,000 for something I have no knowledge or recollection or memory or anything like that. Now as far as ever having any conversation with anybody about certain things here, I think in an offhand way I have, but I have never prepared a list of construction costs.

Q. That is not answering the question.

MR. McALLISTER: I wish your would have the

reporter read the question, please, Mr. Examiner, and ask that the question as put be answered.

BY EXAMINER SPENCER:

Q. Did you participate in the preparation of the plans?

MR. McALLISTER: Or any plan.

BY EXAMINER SPENCER:

Q. Or any plan referred to in that statement read by Mr. McAllister.

MR. McALLISTER: Mr. Examiner, you are narrowing my question. It is in this or anywhere which has as its purpose or contemplation the integration of these systems in the manner in which it is set forth in this application.

BY EXAMINER SPENCER:

Q. Answer the question, Mr. Sibley, directly, please.

A. I had nothing to do with the data in that report as far as I know.

EXAMINER SPENCER: All right, sir.

MR. McALLISTER: That is not answering the question.

BY MR. McALLISTER:

Q. I mean did you, Mr. Sibley, participate in any way or have anything to do with the laying out of the plan for the integration of these companies in the manner in which it is stated in here, the tying together of these companies I named, in reading from this application, the integrating of those systems, that is the New Jersey Power & Light Company, Jersey Central Power & Light Company and Staten Island Edison Corporation?

A. Well, I have had conversations with these different companies, but as far as making up a report, I didn't make it.

BY EXAMINER SPENCER:

Q. Have you participated in the preparation of any plan for integration?

A. I have discussed such a scheme with these operating companies. I have talked that matter over with them.

Q. As a result of your discussion was any definite plan prepared and submitted to you which you considered or approved?

A. No.

EXAMINER SPENCER: Mr. McAllister, I think that answers the question.

MR. McALLISTER: Mr. Examiner, the application of the New Jersey Power & Light Company to the Securities and Exchange Commission which I have just read relates circumstances under which the securities which are involved in the present procedure before this Commission were acquired and contains pertinent data regarding New Jersey Power & Light Company and Jersey Central Power & Light Company, and I would like to offer for the record at this time by reference the application of New Jersey Power & Light Company as filed with the Securities and Exchange Commission, but in such offer I wish to exclude therefrom that part—

EXAMINER SPENCER: (interposing) Let me interrupt you, Mr. McAllister, can you not offer it by pages?

MR. McALLISTER: Not by pages, but by divisions I can. I am getting ready to state I want to exclude the voluminous part we are not concerned with.

EXAMINER SPENCER: All right.

MR. McALLISTER: Will you pick up my statement where I left off, Mr. Reporter?

(The reporter thereupon read the portion of the statement of Mr. McAllister as requested.)

MR. McALLISTER: (continuing)—of the application which sets forth the terms of bond indentures, certificates of incorporation, and the like. In other words, I offer the original application and the amendments to that application, including the exhibits referred to in the application and amendments, excluding therefrom those documents which may be generally termed articles of incorporation, indentures and certificates of incorporation. I ask that that application with the amendments referred to be received in evidence by reference.

EXAMINER SPENCER: Mr. Paxson.

MR. PAXSON: If the Commission please, I thought we were engaged in the cross examination of the respondent's witness. I didn't know the Commission was putting in its case. It has already put in its direct case and it is not yet in the rebuttal stages so, I can't see how it has any pertinency. Passing that, however, I object to the offer of this in evidence, as no purpose has been stated. Mr. McAllister has stated it has something to do with the securities now under discussion.

While I have never seen this application or have had anything to do with its preparation, I am a member of a large firm, and I don't believe our firm passed upon it, but I do have some hearsay knowledge which I believe to be correct that an application has been filed. He gives the date. I don't know when he says it was in April, it is for the acquisition of other shares of stock of the Jersey Central Power & Light Company.

Now what probative value can this have in relation to do with the securities not under consideration here?

Apart from that it is a very compendious record. It may have all sorts of conclusions. I don't know what it contains. We are not trying the Securities and Exchange Commission case here. The facts are not in any way related. Some of the statements which may be inferences or conclusions may be disproved, although they may be the best information and belief of the person who filed the application. It is incompetent, immaterial and irrelevant and burdening this record unnecessarily.

There ought to be some limits to what is included in the record. I am speaking from my experience with New Jersey Power & Light Company and experience with this Commission. The cost of printing involves thousands of dollars and this is thrown in only in the hope it might turn up something. I think the Commission ought to administer matters in the interest of economy to New Jersey Power & Light Company which is so often lost sight of.

MR. AUTENRIETH: May I also add my objection on behalf of Jersey Central Power & Light Company in that it is not a party to the application of the New Jersey Power & Light Company with the Securities and Exchange Commission?

EXAMINER SPENCER: The ruling on the admission of this record will be deferred until cross examination is completed.

Proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. Mr. Sibley, on page 676 of the record,—

MR. AUTENRIETH: (interposing) Page what?

MR. McALLISTER: 676.

BY MR. McALLISTER:

Q. You related 300 kilowatt hours per month over a certain period to the quantity of kilowatt hours per month that would be required to operate a water heater in a home. Why did you pick a water heater?

A. Well, on page 26 of the General Electric Diary there is a list of the consumption in kilowatt hours per month of various devices. I simply picked that because it was the most representative.

Q. All right, how about a vacuum cleaner, how much does it take to run that?

A. A vacuum cleaner takes 3 kilowatt hours per year.

Q. Do you heat water in your own home with electricity?

A. Well I don't, because I happen to heat my house with gas, so we have two in one.

Q. What is the average consumption on the Staten Island Edison Corporation per year by domestic users of electricity for lighting homes, houses?

A. I don't know.

Q. I will modify that question. What is the average domestic use of electricity on the Staten Island Edison Corporation for all uses in the home?

A. I don't know.

Q. I show you the annual report of the Staten Island Edison Corporation and ask you if that is not shown on page 603 of that report as being 727 kilowatt hours?

MR. PAXSON: Just a moment, please. I object. Mr. Sibley does not represent the Staten Island Edison Corporation. He does not know anything about what is contained in its reports. It is not competent.

EXAMINER SPENCER: The objection is sustained. The report may be offered, Mr. McAllister.

MR. McALLISTER: I am merely asking him if that is not shown in the report.

EXAMINER SPENCER: You would have to identify the report.

BY MR. McALLISTER:

Q. Mr. Sibley, will you state what that report is (indicating)?

MR. PAXSON: The same objection, that he shows the purpose.

BY MR. McALLISTER:

Q. I will show you a document and ask you what it is (indicating)?

A. This is the first time I ever saw it, but it says it is an EPC form No. 1, Electric Utilities and Licensees of Class A and Class B. Annual Report of Staten Island Edison Corporation, 4845 Bay Street, St. George, Staten Island, New York. To the Federal Power Commission for the year ending December 31, 1937.

Then there are some stamps on it, "acknowledged" and "approved".

Q. I will ask you to look at the last page and state whether or not that is verified and, if so, by whom?

MR. PAXSON: If he had nothing to do with the preparation how can he tell whether it is verified or not. He can read it; but the stenographer can do that.

MR. McALLISTER: That is true, Mr. Examiner. But he has testified from an examination of records in substations and general offices on the lines of the Staten Island Edison Corporation, the Jersey Central Power and Light Company and New Jersey Power and Light Company. This is merely another document submitted by the Staten Island Edison Corporation which was submitted by them from their records.

EXAMINER SPENCER: If he knows the signature of the person who signed it and he can state that that is a report, I will let him testify.

THE WITNESS: There are two signatures on here. The first one looks like "William Kinzle" and then it is attested. Then there is another signature here—"W. E. Mange"; and that signature has been attested.

BY MR. McALLISTER:

Q. Now, Mr. Sibley, will you please look at page 609?

MR. PAXSON: Do you know those signatures, Mr. Sibley? That was the question he asked you. You have had a great struggle with one of them.

THE WITNESS: I cannot swear that they are signatures.

BY MR. McALLISTER:

Q. I am merely asking you to identify the fact that it was verified by the signature of the president. I am not asking you whether or not that is the signature. Mr. Lytle identified the signatures the other day.

MR. PAXSON: We admit it purports to be verified.

EXAMINER SPENCER: Please proceed with the examination. What is your question?

MR. McALLISTER: I stated this, Mr. Examiner, that I did not ask this witness to identify and testify whether or not that was the signature of the President.

I followed that statement with the further statement that this particular report was identified by Mr. Lytle when he was on the stand the other day, and he did state that that was the signature of the president.

EXAMINER SPENCER: Has that report been introduced before?

MR. McALLISTER: It has been referred to before and was identified by witness Lytle, who said he knew the signatures of both of those men, and that they were correct.

EXAMINER SPENCER: I remember that one report was identified by one of the witnesses, if this is the report.

MR. McALLISTER: That is one of the reports. There were other reports that were identified. I cannot give you the page now, but I am certain it is in the record.

BY MR. McALLISTER:

Q. On page 603 will you state what is shown there as being the average domestic consumption on the Staten Island Edison Corporation for the year 1937?

A. If I read the report correctly it is 727 kilowatt hours per customer. That value appears in the fifth line down.

Q. On page 603?

A. Yes.

Q. If you had related your answer, as stated on page 676, dealing with the quantity of energy used to operate a home water heater and the quantity of energy required on the average for domestic consumption on the Staten Island Edison Corporation, you would have given a very much different answer, would you not?

A. Those kilowatt hours were what? The emergency kilowatt hours were what?

Q. 8125, I think.

A. 8125?

Q. Yes.

A. And was that 747 kilowatt hours?

Q. No; it was 727 kilowatt hours.

A. Now, Mr. McAllister, what was your question?

Q. If instead of relating the 8125 kilowatt hours to the quantity of energy required to operate a home water heater you had related it to the quantity of electric energy that would be consumed in a home or the average as stated by the Staten Island Edison Corporation in their annual report, you would have reached an entirely different conclusion, would you not?

A. I find that this emergency 8125 kilowatt hours divided by the average yearly domestic consumption on the Staten Island Edison Corporation for the year 1937 would show that one such customer would be supplied for 11½ years.

Q. Putting it in another way, Mr. Sibley, it would supply 11½ customers for one year, would it not?

A. Yes; that is right.

EXAMINER SPENCER: Gentlemen, at this time we will recess for ten minutes.

(Thereupon, a short recess was taken, after which the following occurred:)

EXAMINER SPENCER: Mr. McAllister, you may proceed with your examination.

BY MR. McALLISTER:

Q. Mr. Sibley, the respondent introduced in evidence in this case two exhibits which were numbered respondent's exhibits Nos. 4 and 5. In referring to them yesterday I believe you picked off of those exhibits a figure of 8125 kilowatt hours of emergency energy about which you answered some questions just previous to the short recess. Isn't that true?

A. I will take your word that it is true.

Q. I didn't know, but I understood it was true. I understood it was from one of those exhibits that you got that figure of 8125.

A. Yes; I read this figure from these exhibits.

Q. As a matter of fact, Mr. Sibley, you know, do you know, that the total energy which was delivered to the Staten Island Edison Corporation by the Public Service Electric and Gas Company during the year 1937 was something in excess of 3,000,000 kilowatt hours, do you not?

MR. PAXSON: Just a moment, please. I object to the use of the word "delivered" unless he explains. It he means it flowed over, we will accept it. There has been a lot of testimony about this 3,000,000 kilowatt hours and incidental power, but the word "delivered" may have a legal significance. I think it does have.

EXAMINER SPENCER: Are you referring to all kinds of power, Mr. McAllister?

MR. McALLISTER: I am referring to electric energy which was metered by the Public Service Electric and Gas Company as moving from that company to the Staten Island Edison Corporation in 1937, which is shown by various exhibits in this record.

EXAMINER SPENCER: In any event, you mean the energy that passed from the Public Service Electric and Gas Company to the Staten Island Edison Corporation, no matter whether it was incidental or economy or other energy, and without respect to whether it was purchased under contract or otherwise? Is that true?

MR. McALLISTER: I am not bringing in any of those questions. I am not concerned with that.

EXAMINER SPENCER: I am asking you a direct question, Mr. McAllister. Is it or is it not true.

Am I mistaken in interpreting the meaning of your question?

MR. McALLISTER: I am referring to the quantity that is shown on Exhibit No. 5, which was introduced on behalf of the Commission, which shows energy purchased from others and energy purchased from Public Service Electric and Gas Company shown on this statement headed "Staten Island Edison Corporation", and which sets forth, as testified to by Mr. Grimsley, facts reported by the Staten Island Edison Corporation in their sworn statement filed with the Federal Power Commission for the year 1937.

EXAMINER SPENCER: That clarifies it. You may proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. With respect to that quantity of energy, Mr. Sibley, if it was utilized by the Staten Island Edison Corporation for the lightings and domestic use in accordance with its experience as stated in its annual report, that the average domestic consumption was 727 kilowatt hours per year, how many homes would that quantity of energy light over a period of a year? The figure as stated in that report is 3,093,400 kilowatt hours.

A. I don't have that exhibit.

Q. That is exhibit No. 5. That would be in this other bunch over here (indicating).

A. Well, I have No. 5.

Q. But you have respondent's exhibit No. 5. The other one that I am referring to is Commission's exhibit No. 5. This is the figure to which I am referring (indicating).

A. Taking 3,093,400 kilowatt hours, divided by the average quantity consumed by the domestic consumer of the Staten Island Edison Corporation in 1937, the quotient is 4260.

Q. That would be 4260 of the average character served by the Staten Island Edison Corporation to supply their entire requirements out of that 3,093,400 kilowatt hours?

A. I don't think that is exactly true, Mr. McAllister, because this 3,093,400 kilowatt hours was not of a continuous nature; it could not be depended upon to light 4260 homes.

Q. I indulged in that relationship only because in dealing with emergency energy, which was over a very short time, you said that it would provide a quantity sufficient to operate an electric water heater for a period of a year.

Now, Mr. Sibley, relating these other quantities to a practical use in that sense for the purpose of determining how much it is, as you would view it in its practical application, it would show that if 4260 homes could be lighted on the Staten Island, that quantity of energy would supply the amount required for domestic consumption of 4260 homes of the average character supplied by the Staten Island under the same assumption in which you indulged in making the analogy which you did indulge in in relation to the quantity consumed in operating the electric water heater. Isn't that true?

A. No, sir. That is not quite comparable. The 8125 kilowatt hours came over at a time when it was badly needed on Staten Island. This 3,093,400 came over at various and different times.

Q. It came over the line and it was made use of to the extent it was required by the loads of the Staten Island Edison Corporation?

A. No, sir. You can't compare it. That energy was not dependable energy. It came over the line, it is true, but it came over the line at times when it was not required.

Q. Forgetting everything but the question of its utility as a quantity, if put together in one block it would accomplish what your computations show, would it not, that 3,093,400 kilowatt hours of electric energy used on the sys-

tem of the Staten Island Edison Corporation will provide 4260 homes with their requirements for electric power over a period of one year?

A. I don't think that is true for these particular kilowatt hours.

Q. I am not referring to these particular kilowatt hours. I am saying that that quantity of electric energy will have that utility value on the system of the Staten Island Edison Corporation.

A. As I stated previously, 3,093,400 kilowatt hours divided by the average consumption of one customer for a year, that quotient is 4260.

Q. I am asking you, Mr. Sibley, if that does not mean that that quantity of energy would be the quantity of energy consumed by 4260 homes on the Staten Island Edison Corporation of the character indicated by the average domestic consumption on that system in the year 1937.

A. 4260 homes during the year 1937 at an average rate of 727 kilowatt hours per customer per year would amount to 3,093,400 kilowatt hours.

Q. And 727 kilowatt hours is the average domestic consumption on the system of the Staten Island Edison Corporation, isn't it?

A. I believe that is true.

Q. Do you know what is the total number of domestic customers served by Staten Island Edison Corporation?

A. No, sir.

Q. I show you the same volume that you identified a little while ago, Mr. Sibley, being the annual report of the Staten Island Edison Corporation.

MR. PAXSON: I don't know that Mr. Sibley has identified it, Mr. Examiner. But I do not want to be captious about it at all.

EXAMINER SPENCER: What is the question that you are asking, Mr. McAllister?

MR. McALLISTER: I would like to ask this question of the witness.

EXAMINER SPENCER: You may proceed with your examination, Mr. McAllister.

BY MR. McALLISTER:

Q. I will ask you to refer to page 603, which is the same page to which you referred before, Mr. Sibley, and state the total number of domestic consumers on the Staten Island Edison Corporation for the year 1937 as reported by that company in their annual report to the Federal Power Commission.

A. On page 603, in the column headed "B", the first entry under that column, which is the fifth space, opposite "residential customers" or, rather, "residential service" there is a figure of 40,469, which may be the number of residential customers.

Q. How is that column headed?

A. It is headed "average number of customers per month".

Q. And the statement is for the year 1937, is it not?

A. Yes, sir; it is so stated at the top of the page.

Q. I will ask also, Mr. Sibley, that you follow on over that same line, which is designated "residential service", and in the last column, and state what is the average price per kilowatt hour for the year 1937 charged for residential service.

A. In the last column on page 603 of the 1937 annual report of Staten Island Edison Corporation, the fifth line down, and opposite "D", Residential Service, there is a figure of 5.92.

Q. And that column is headed how?

A. It is headed "Revenue per kilowatt hour".

EXAMINER SPENCER: Proceed, Mr. McAllister.

MR. McALLISTER: The witness was studying the report and I thought perhaps he had something further to say.

THE WITNESS: I thought I answered your question.

MR. McALLISTER: I did too, but I thought you had some question about the report.

THE WITNESS: It is the first time I saw it, and it amused me.

MR. McALLISTER: I thought the witness was going to add something to his answer, and I didn't want to cut him off before he did it.

EXAMINER SPENCER: I thought he had answered. So you may proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. Obviously that figure of 5.92 which you read is a statement in cents, isn't it?

A. I think that is correct. It would look to be about right to me.

Q. If there is any question about it, the money is shown here and the kilowatts. If that is correct it will eliminate the necessity of going into that computation.

A. I will accept that. It looks right.

Q. It has been called to my attention that it is headed "cents" in the column there, Mr. Sibley.

A. Yes; it is.

Q. So there is no question about it. I had not noticed that.

A. Yes; it is so headed.

Q. Now, Mr. Sibley, will you please refer to respondent's Exhibit No. 7, which I believe you introduced in the record and which you stated was prepared by you?

A. Yes. I have it before me.

Q. That exhibit in Column "B" shows for the year 1937 something over three million kilowatt hours, and column "C" shows also for the year 1937 something in excess of three million kilowatt hours. It indicates that during 1937 a total of six million kilowatt hours moved over this interconnection between Mechanic Street Substation and Staten Island Substation at Atlantic? Is that true?

A. That is correct.

Q. As a matter of fact, Mr. Sibley, Jersey Central Power and Light Company sold and delivered something in excess of 55,000,000 kilowatt hours to the Public Service Electric and Gas Company, which was received by the latter Company at Mechanic Street Substation in Perth Amboy, New Jersey. Isn't that true?

A. I don't remember the exact figures, but it was on that order. We can check it over here.

Q. Commission's Exhibit No. 2, which is among the exhibits on the table before you, will show that, Mr. Sibley, if you care to refresh your memory.

A. On Commission's Exhibit No. 2 on page one, near the bottom of the page, under "energy sold for resale", I find Item No. 1, entitled "sold to Public Service Electric and Gas Company at South Amboy"; and the figure for 1937 is 55,421,000 kilowatt hours.

Q. You have made a study of the generation of the Jersey Central Power and Light Company, have you not?

MR. PAXSON: I did not hear the question.

(The question was then read by the Reporter.)

THE WITNESS: I have examined their three stations and am familiar with records which I obtained from the load dispatcher of the Jersey Central Power and Light Company.

BY MR. McALLISTER:

Q. On direct examination you stated, did you not, that you had made a study of their generation?

A. Yes; I examined their generating station log sheets, and I believe they represent the facts.

Q. What was the total generation of the South Amboy plant for the year 1937?

A. Again referring to Commission's Exhibit No. 2, under the heading "energy output by plants", item No. 2, entitled "South Amboy", shows 167,441,300 kilowatt hours for the year 1937.

Q. Of course, Mr. Sibley, you have taken that information which you have read into the record from Commission's Exhibit No. 2?

A. It is a Commission exhibit; but I believe it is true.

Q. Referring to your exhibit No. 7, Mr. Sibley, will you state what conclusions are to be drawn from the last column at the right hand side of that exhibit?

A. In the last column on respondent's exhibit No. 7 we have shown the relation that the net interchange between the Public Service Electric and Gas Company and the Staten Island Edison Corporation bears to the total net generation in all power houses on the system of the Jersey Central Power and Light Company. This is shown monthly for the period beginning August, 1937, up to and including March, 1938.

BY MR. PAXSON:

Q. Do you mean that relation or that comparison?

MR. McALLISTER: The witness prepared this exhibit and I think he is qualified to state what he intended to show.

THE WITNESS: My definition of a relation probably as an engineer would be almost the same thing. We put in the numerator, for instance, 677,800 and in the denominator we put in 32,656,525. You may term it a proportion or a relation or a comparison or express it in percentage, the way I have in this last column.

Q. What conclusion is to be drawn from that? That was my question, Mr. Sibley. I did not ask you how you arrived at it.

A. I am sorry, Mr. McAllister, but I did not understand your question.

The object of this last column was to show the insignificance of this power as compared with the total generation on the Jersey Central Power and Light System.

Q. Will you please look at the month of September, 1935 as a matter of illustration? You show there an excess of 10,000. You show 12,000 on there; but if you subtract those figures it shows 10,000, doesn't it?

A. Yes; it does. I don't know how that figure crept in there. I would be willing to refigure that percentage.

Q. I don't make any point of it.

A. Well, it is true that is an error. Either the difference is in error or else the figures under column "B" or the figure under Column "C".

Q. I am not making any point of that. For the purpose of illustration, Mr. Sibley, there was an excess of energy moving from Staten Island Edison Corporation to Public Service Electric and Gas Company during that month. Isn't that true?

A. The excess was in the amount of power that Public Service Electric and Gas Company received from Staten Island Edison Corporation.

Q. That is correct.

A. Yes.

Q. Now, could that excess in any way have a relation to the generation of Jersey Central?

A. How do you mean?

Q. As a practical proposition.

A. Let me get this right. Do you mean the difference in this ebb and flow of power through that line?

Q. Yes.

A. Is it dependent upon the amount of power gen-

erated in the generating stations of the Jersey Central Light and Power Company?

Q. Yes; when that situation exists where the balance in the period is from Staten Island Edison Corporation to Public Service Electric and Gas Company. As a practical matter it is just an irrational assumption, isn't it, to divide that quantity by the generation on some other system which could not under any circumstances have been related to the excess?

A. I think that is true. I think that statement is true.

Q. You merely divided the two columns B and D by the quantity shown in "A" without relation to any particular conclusion, did you not?

A. The object of this exhibit when it was prepared was to show the smallness of the amount of power as compared with the total generation if all of the energy that flowed from the Public Service Electric and Gas Company to the Staten Island Edison Corporation were generated by Jersey Central Light and Power Company. We know this to be an absurd condition.

Q. The practical situation is this, isn't it, Mr. Sibley: three million kilowatt hours per year flowed over that interconnection from Public Service Electric and Gas Company to the Staten Island Edison Corporation and relatively the same quantity passed in the opposite direction over that interconnection?

A. That is true.

Q. And there is no real reason for determining by what amount the operator has failed to balance out any particular month, is there, insofar as the flow of energy back and forth across that interconnection is concerned? If he balanced it exactly each month with the same total at the end of the year the total quantity of energy passing over the interconnection in the course of that year would have been the same?

A. Yes; it would.

Q. So the matter of just how close he came to balancing doesn't in any way affect the total flow of energy over that interconnection?

A. Well, these two columns were—

Q. Now, Mr. Sibley, will you just answer the question, please? I will give you all the opportunity later to explain your answer.

A. Will you repeat it, please.

EXAMINER SPENCER: Will the reporter read the question, please?

(The question was then read by the Reporter).

THE WITNESS: I do not agree to that.

MR. McALLISTER: Will you read the question again, Mr. Reporter, please?

EXAMINER SPENCER: He just read it. What was your answer, Mr. Sibley?

THE WITNESS: No; I don't think that is true. Had the operator been more alert and more proficient the amount of energy flowing in both directions would have been smaller.

BY MR. McALLISTER:

Q. By that you mean if he had held the needle on the zero mark all of the time he would have eliminated all of it, do you?

A. That is a correct statement—with one exception. This also includes power supplied for economy and emergency service.

Q. As a matter of fact, that is the condition set forth in columns B and C insofar as flow of energy over that interconnection shown is concerned. That is true, is it not, Mr. Sibley?

A. That is a correct statement.

Q. Referring to your exhibit No. 8, Mr. Sibley, what occurred on Staten Island about 2:30 a. m. on the day which is shown on your chart, August 13, 1936, when that block of emergency power was taken by Staten Island Edison Corporation from Public Service Electric and Gas Company, if you know?

A. I don't know.

Q. You don't know?

A. No, sir. All I know is that they required that power.

Q. How did you know that that was taken as emergency power?

A. That was so stated, either by Mr. Lytle or in one of the exhibits as a time that that was emergency power.

Q. Further than that you don't know?

A. Mr. Lytle told me that it was emergency power.

Q. You made no further investigation to determine its cause or anything further in that regard?

A. Mr. Lytle told me what that was. While I did not state and I do not like to state it as a fact, I am of the opinion that it was transmission trouble. But I wouldn't want to say that. Or perhaps it was some insulators or something. I don't know what it was.

Q. What was the load on the Staten Island line at that time?

A. The load of the Staten Island at that time?

Q. The load on their generators at Livingston plant at that time.

A. I don't know.

Q. Do you know whether one or both of the generators or three or four of the generators at the Livingston plant were out of service at that time?

A. I don't know.

Q. What is the distance from Mechanic Street Substation at Perth Amboy to the generating plant at Marion?

A. I don't know.

Q. Do you know the distance to the Essex plant?

A. No.

Q. Or the Kearney plant?

A. No, sir.

Q. Mr. Sibley, have you made any study to determine the source of the energy which supplies the load of the Public Service Electric and Gas Company at Metuchen?

A. No, sir.

Q. Mr. Sibley, I have certain questions, but I can't locate just where your answer is in the record; but my recollection is that in answer to a question by Mr. Paxson you said that there was no relation between the quantity of energy which Jersey Central Power and Light Company would deliver to the Public Service Electric and Gas Company at Mechanic Street substation and the quantity which Philadelphia Electric Company would deliver to the Public Service Electric and Gas Company at their point of interconnection. Did I understand you correctly?

A. I did testify to something of that character.

Q. Just what did you mean by that statement?

A. As I recall that statement, it was this. Well, I can't recall the question, but I understood the facts as I believe them to be, that a flow of economy energy from the Jersey Central Power and Light Company to the Mechanic Street bus of the Public Service Electric and Gas Company would not affect the amount of power transferred between the Public Service Electric and Gas Company and the Philadelphia Electric Company.

Q. You know Public Service Electric and Gas Company has a contract or contracts covering the interchange of energy with both of those companies to which you referred. Isn't it true? By that I mean the Public Service Electric and Gas Company has a contract with the Philadelphia Electric Company under which they have a right to call for certain power under certain terms and conditions?

A. Yes; I believe that is true.

Q. And, likewise, the Public Service Electric and Gas Company has a contract with the Jersey Central Power and Light Company under the terms of which they have a certain arrangement for the interchange of what is termed economy power at Mechanic Street. When I say Mechanic Street I am referring to the interconnection that exists between those companies, between their plant at Mechanic Street and their plant at South Amboy.

A. Yes; I believe such a contract has been referred to either in evidence or by reference or something. I am not familiar with the contract.

Q. As a matter of fact, the Public Service and Gas Company has the option of electing or deciding from which source they will take the power they will require at any particular time? Isn't that true?

A. I imagine that is true.

Q. To that extent it would affect the quantity that would be taken at the other point?

A. I would like to amplify my reply a little bit, if I may.

I base my opinion upon the fact that we consider the flow of economy power is caused because it can be generated more cheaply on some other unit of the supplying company. The determination of this cost would be the sum of the cost to make this power on the part of the transmitting company and the hypothetical price of generating that power by the receiving company. Those two costs are added and divided by two, and that determines the price of that power.

EXAMINER SPENCER: Mr. McAllister, can you complete this cross examination this afternoon?

MR. McALLISTER: No, I cannot complete it this afternoon, Mr. Examiner. I am anxious to conclude it just as soon as I possibly can do so. It may be that

I can simplify the balance of the cross examination if I have an opportunity over the night to assemble the matters about which I want to inquire and limit my questions just as much as possible so that we can get through. I am anxious to conclude this hearing just as soon as possible.

Mr. Morris, in the course of his testimony, Mr. Examiner, made the statement that revenue derived by Jersey Central Power and Light Company from the sale of economy energy to the Public Service Electric and Gas Company was accounted for on the books of the Jersey Central Power and Light Company as a credit to "production expense".

Counsel for the Commission as well as Counsel for the Respondent and Counsel for the Intervenor agree that this statement may be eliminated from the record and that no reliance will be placed thereon by any party to this proceeding.

MR. PAXSON: That is perfectly satisfactory to me, Mr. Examiner.

MR. AUTENRIETH: That is agreed to.

EXAMINER SPENCER: Gentlemen, we will adjourn at this time until 10:00 o'clock tomorrow morning.

(Whereupon, at 4:35 o'clock p. m., an adjournment was taken until Thursday, October 6, 1938, at 10:00 o'clock a. m.)

Washington, D. C.
Thursday, October 6, 1938.

The hearing in the above-entitled matter was resumed, pursuant to adjournment, in Room 1201 Hurley-Wright

Building, 1800 Pennsylvania Avenue, N. W., Washington, D. C., at 10:00 o'clock a. m.

Before:
Carroll B. Spencer, Trial Examiner.

Appearances:
As heretofore noted.

PROCEEDINGS

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

MR. PAXSON: Mr. Examiner, I would like to have it noted that Judge Autenrieth, who has put in his appearance heretofore for Jersey Central Power and Light Company, has been unable to appear here today. He had no anticipation that this hearing would continue to this great length, and he had some important professional engagements which necessitate his absence. Accordingly, Mr. Examiner, he has asked me to carry on for him. So at this time I want my appearance noted not only for New Jersey Power and Light Company, as it is already noted, but also for the Jersey Central Power and Light Company, so that I can carry on in Judge Autenrieth's absence.

EXAMINER SPENCER: Very well. Judge Autenrieth has already explained to me the necessity for his being away today and I told him that it would be satisfactory to the Examiner.

Let the record show that Mr. Paxson will also act for the Jersey Central Power and Light Company.

You may proceed, Mr. McAllister.

EDGAR DOW SIBLEY

resumed the witness stand and, having been previously sworn, testified as follows:

Direct Examination

BY MR. McALLISTER:

Q. Mr. Sibley, I believe you stated you had made certain investigations of interconnections and operations of the Jersey Central Power and Light Company, Staten Island Edison Corporation, Public Service Electric and Gas Company, and possibly others.

A. Yes.

Q. When did you make these investigations?

A. In the case of Staten Island Edison Corporation, I have known about that company for approximately ten years.

Q. What I am referring to particularly are the investigations you said you made with respect to these particular matters about which you have testified.

A. They have all been made recently.

Q. Can you state the date on which you began your investigation?

A. I believe September 12, 1938 was the first time I had ever entered the Perth Amboy substation known as Mechanic Street substation of the Public Service Electric and Gas Company.

I visited the power station of the Jersey Central Power and Light Company approximately two years or three years ago, and again on the 15th of September, 1938. I believe I was there also on the 16th of September.

As to the Staten Island Edison Corporation, I have been in that power house and visited the interconnections several times in the last nine years, I would say.

Q. In the course of this investigation what did you do in those plants or in that plant during the periods you have indicated here?

A. As to the Staten Island Edison Corporation, I visited the office where the records, and so on, are kept in the service building just across the street from the power station.

Q. At Livingston?

A. At Livingston, yes, sir.

Q. What was the latest date upon which your investigation continued?

A. On Saturday afternoon, September 24th, I went over the lines that are involved in the New Lisbon-Wrightstown power supply, and on Saturday, October first, 1938, I returned to the office of the Public Service Electric and Gas Company in Perth Amboy to obtain some additional data.

Q. Who instructed you to make this investigation; Mr. Sibley?

A. I was requested to make this investigation by Mr. Paxson.

Q. No other instructions came to you?

A. No, sir.

Q. You received no request or instruction from the New Jersey Power and Light Company?

MR. PAXSON: If the Commission please, I represent the New Jersey Power and Light Company as their attorney.

THE WITNESS: No, sir. The only one who asked me to go over there was a request by Mr. Paxson.

BY MR. McALLISTER:

Q. To whom do you report as your immediate superior?

A. E. M. Gilbert.

Q. You report to Mr. E. M. Gilbert as your immediate superior?

A. Yes, sir.

Q. I believe you stated you are a vice-president of the E. M. Gilbert Engineering Corporation.

A. That is correct.

Q. He gave you no instructions as to the investigation which you made?

A. I beg your pardon. I did not understand that question.

Q. E. M. Gilbert gave you no instructions as to the investigation that you were to make?

A. No, sir.

Q. Did your investigations involve any investigation of the New Jersey Power and Light Company at this time?

A. No, sir.

Q. At the time you inspected the plant of the Jersey Central Power and Light Company I believe you said it was within the last two years prior to this investigation. Is that correct?

A. Yes, sir. I had been in it, I would say, possibly two years ago.

Q. And is the operation today substantially what it was then?

A. Well, I cannot remember that. I didn't notice anything different.

Q. No changes were directed particularly to your attention?

A. No, sir.

Q. What would you say with respect to the connection between the Jersey Central Power and Light Company and the Public Service Electric and Gas Company, between South Amboy and Mechanic Street? Has that remained substantially the same over this period of time?

A. I never saw the Public Service Electric and Gas Company's facilities until the 12th of last month, I believe it was.

Q. The records which you examined as to flow of energy and interchange, facilities utilized to accomplish

that interchange, and other relevant matters that you examined did not indicate that there was any change in that connection over that period of time?

A. The only exception to that was that I asked them. I sketched a diagram of the outdoor bus, and then I said, "Don't you have a drawing that you can give me?", and he said he had a drawing there that was out of date; but he got me another one. So I took the early drawing there and started away with it. It did not include the bus oil switch. Afterwards they sent me a drawing that had the oil circuit breaker in it.

Q. That was at Mechanic Street?

A. Yes.

Q. Going down to the other end of the connection at Jersey Central Power and Light Company, did they indicate any change in that connection or in the methods of operation over the period of time since you had been there before up until this time?

A. When I went there before I went just as a matter of interest. I have been more or less in all of the power stations in the east. I sort of enjoy seeing what the other engineers do. The only outstanding thing in that station that I remember was the outdoor bus construction. As to the actual operation when I was there two years ago I cannot remember or testify to one way or the other.

Q. But, as I understood your testimony on direct examination in response to questions propounded to you, you did say that you had made an investigation of the flow of energy and the interconnection over the period from August 26, 1935.

A. Yes; I made that investigation from the information which I obtained from the records in the load dispatcher's office of the Jersey Central Power and Light Company located in the South Amboy generating station.

Q. In your examination of those records was there any indication of any change in the methods of operation over that period of time?

A. I do not recall any notation. Anyway, I didn't see any notations on the log sheets which I examined. They all had a history of what had happened over the lines in the way of flow of power.

Q. Then you assumed that the conditions during that period of time were substantially the same?

A. So far as I know they were the same.

Q. So far as you are concerned, Mr. Sibley, the condition was the same? You made no effort to determine that point definitely with the thought in mind that there might have been a change?

A. No; I did not.

Q. Would you say the situation was substantially the same so far as transmission lines are concerned from Mechanic Street substation to the Atlantic substation of Staten Island Edison Corporation?

A. Well, as stated previously, the first time I ever saw the facilities of the Public Service Electric and Gas Company in the vicinity of Mechanic Street was on the 12th day of October, 1938.

BY MR. PAXSON:

Q. Don't you mean the 12th day of September? You testified before that it was September.

A. Yes; I mean September 12, 1938.

BY MR. McALLISTER:

Q. But in studying the records as to what had transpired over that period of time from August, 1935 you would be interested, would you not, in whether there had been any material change in the facilities or the methods of operation?

A. Well, I took the office of the Public Service Electric and Gas Company. They made available to me certain records, and I took data from these records and attempted to make certain calculations from them. I did not inquire as to how they operate now or how they operated then or at any other time.

Q. Then it would be a reasonable conclusion, would it, that you assumed the operation was substantially the same?

A. It may have been.

Q. What was your assumption?

A. Well, I used the records to attempt to find out and make calculations as if the facilities were the same as they were on the day when I had seen them.

MR. PAXSON: Possibly if Mr. McAllister would define operation more specifically Mr. Sibley could answer the question more profitably.

MR. McALLISTER: We will get along all right, Mr. Paxson.

EXAMINER SPENCER: Proceed, please.

BY MR. McALLISTER:

Q. You found no evidence of any change in operation?

A. I did not go thoroughly into the operation.

Q. But as far as you did go into it you found no change in operation?

A. I must admit I did not go into the operation very thoroughly.

Q. Then, if you make use over a period of time of data and make comparisons between the information relating to one period as compared with the same records as to another period of time, you must assume that other conditions remain constant?

A. Well, I did assume that.

Q. You did assume that?

A. Yes.

Q. And you found nothing to the contrary in the records?

A. Found what?

Q. You found no indications—

MR. PAXSON: That is objected to. The records speak for themselves. I ask for an offer. I decline to

draw legal conclusions if the thing exists today it is presumed to continue for many years or possibly some years since. I object to these questions because this witness cannot testify to legal conclusions. Probably he would make a lot of assumptions based upon his very general inquiry, which I think is rather impertinent—by which I mean it is not material to the issues. I object to his general line unless he fixes it more definitely and specifically. There has been a great deal of specific testimony in this case about what the record show. When a man says he examined the records for some years you cannot generalize so as to reach any definite conclusions of that character.

Unless he can show exactly what his purpose is in this line of inquiry I object to it.

EXAMINER SPENCER: The witness has testified that he assumed operation conditions were the same.

MR. PAXSON: I would like to have him define what he means in his question. An engineer may have one idea of operation conditions and he may have another idea. I don't know what he is talking about; and I don't suppose the witness does.

EXAMINER SPENCER: For the purpose of the record I myself would like to know whether when you refer to operating conditions it is the condition of the line or the actual operating management of the company. I assume you refer to operating conditions as meaning particularly the facilities. Is that true, Mr. McAllister?

MR. McALLISTER: I have not limited my question.

EXAMINER SPENCER: I know you have not, and you have not explained it. I want to find out.

MR. McALLISTER: I made it very, very clear as to what this witness did in his investigation with respect to operation which relate to his testimony, and he stated certain conditions follow from the examination of these records. I merely wanted him to state, as he did state, and it is satisfactory as the record stands, that he found no change.

EXAMINER SPENCER: All right.

MR. McALLISTER: There is absolutely no question as to what the record shows and what the witness meant by his answer.

MR. PAXSON: As to what? No change as to what? That is what I want to find out about.

BY EXAMINER SPENCER:

Q. When you say no change in operating conditions do you mean the facilities or the operating management of the company, or both?

A. Your Honor, I was there only once or twice. To compare that to what it had been at some other time, of course, I am unable to do it. In examining records I took data from the records and I assumed that the meters that were utilized in supplying the indications from which these indications were recorded on the log sheets had remained the same meters over the period. I assumed that was true with all the instruments on the switchboard. But so far as actually knowing about the management or other things, I have no way of comparing that.

Q. In compiling your data did you assume the electric energy was flowing the same way all of this time?

A. I assumed the physical wires were the same. Of course, the flow of energy varies at different times under different conditions.

Q. All right. You may proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. Mr. Sibley, you testified regarding the interconnection at Wrightstown-New Lisbon and described the connection as of the date you made your investigation, did you?

A. I did.

Q. Did you assume that that same condition existed over the period in the past, let us say from approximately September 1, 1935 down to date?

A. I made no effort to determine how long the existing connections were in their present form.

Q. Did you find any evidence of any changes?

A. In fact, I went over there without any representatives of the Public Service Electric and Gas Company or of the Jersey Central Power and Light Company. I went over with one of our men and I had no one to explain any of those circuits to me and I did not have the advantage of anyone to ask about these things. I just recorded things the way I found them.

Q. But so far as the interconnection at Mechanic Street with the Jersey Central Power and Light Company and the interconnection between Mechanic Street and Atlantic substation are concerned, the records which you examined indicated no change in the operation of those facilities or changes in the facilities themselves of any material consequence during the period of time involved in the study which you said you made?

MR. PAXSON: That is objected to. He testified that he examined the log sheets and records. I take it that log sheets do not show whether or not there have been any changes in facilities. They have a specific purpose which Mr. Sibley has described. Whether they show operations, unless he defines what he means by operation, I also object to.

EXAMINER SPENCER: The objection is overruled.

You may proceed, Mr. McAllister.

MR. PAXSON: An exception, please.

EXAMINER SPENCER: An exception is noted.

BY MR. McALLISTER:

Q. Will you please proceed, Mr. Sibley?

A. I don't know how to answer the question other than in the way I have answered it. I am trying to answer what you want to know.

Q. I appreciate that. We would have concluded this examination long ago if it were not for the interruptions.

EXAMINER SPENCER: You may proceed.

BY MR. McALLISTER:

Q. But will you just answer the question as I have put it to you now, and then perhaps we can drop the matter, if it is complete as to what you did?

A. So far as I know, the electrical instruments on the switchboard are the same electrical instruments that were utilized to record all of the records which I used in making this determination. Concerning the outdoor switching equipment, I have no knowledge of any change there except the addition of an oil circuit breaker in the bus bars.

Q. As concerns the transmission lines, Mr. Sibley, to your knowledge were there any changes with respect to those?

MR. PAXSON: That is objected to unless he defines what he means by transmission lines. The word "transmission" is quite important in this inquiry, if Your Honor please, because it is stated in the law, and certain legal conclusions flow therefrom. I do not care to have it used generally and have any deductions drawn.

EXAMINER SPENCER: Will you be more specific in the question, Mr. McAllister?

BY MR. McALLISTER:

Q. I am referring to the transmission lines, Mr. Sibley, which you stated were utilized in transmitting energy from Mechanic Street substation to Atlantic Substation of the Staten Island Edison Corporation and the transmission lines and facilities utilized in the transmission of electric energy from Jersey Central Power and Light Company to Public Service Electric and Gas Company at Mechanic Street.

A. So far as I know there has been no change in those feeders.

Q. When you use the term feeder, you are referring to the transmission lines, the circuits between the substations?

A. I am referring to the cable interconnection in the case of the Staten Island Edison Corporation and the cable as far as the south bank of the Raritan River and the double circuit open line to the substation in the yard of the Jersey Central Power and Light Company at South Amboy.

Q. When you say open station, Mr. Sibley, you mean the substation outside the generating plant? Is that true?

A. I mean to say the open wire line as distinguished from a cable.

Q. The pole line?

A. Yes.

Q. You have referred to the connection between Mechanic Street substation and Atlantic Substation of the Staten Island Edison Corporation variously as an interconnected line and circuit, and I am asking you whether you intended to indicate by that testimony that it is not a transmission line?

A. I did not attempt to differentiate between a transmission line and a distribution line. That particular line is a tie line. In fact, cable lines we usually speak of as circuits and we often refer to them as feeders, and we have

all kinds of names. I have been trying to be very specific here by referring to them as cables or overhead wires or something.

Q. Considering the various elements that go to make up the tie, it is used solely and only for the transmission of electric energy between those two substations?

A. Oh, surely.

Q. There is no question of there being any customers in that area?

A. As I understand it, Mr. McAllister—

Q. Between the two stations.

A. As I understand it, as to this length of cable from Atlantic substation to Mechanic Street, there are no customers that I know of in that cable section.

Q. It performs exactly the same function as would be accomplished if the line were carried overhead the entire distance?

A. It is a conductor for conveying electrical energy. It is a path or conveyance of electrical energy.

Q. Will you just answer the question as I put it, please?

A. What is the question?

Q. It performs exactly the same function as would be accomplished if the line were carried overhead the entire distance?

A. Yes.

Q. And the same thing holds true with respect to the interconnection between Mechanic Street substation and the substation at the plant of the Jersey Central Power and Light Company at South Amboy?

A. An overhead conductor would perform the same function as this cable performs.

Q. And there are no customers—if that makes any difference—on the line from the substation of the Jersey Central Power and Light Company at South Amboy to

the Mechanic Street substation of the Public Service Electric and Gas Company at Perth Amboy?

A. That is true.

Q. Mr. Sibley, referring to exhibit No. 8, page 692 of the record this question was asked you:

"Q. Does this graph show at the time of this emergency on the Staten Island Edison Corporation lines that there was any increase in the flow of power from Jersey Central Power and Light Company to Public Service Electric and Gas Company?"

And your answer was:

"A. None that I can see."

Isn't that true?

A. I believe that is what I said. I haven't the minutes here, but it is the spirit of it.

Q. That is the substance of what you intended to say?

A. Yes.

Q. I think I read it correctly.

Will you please refer to that chart and state whether or not it is a fact that the lower graph, showing the movement of electric energy from Jersey Central Power and Light Company to Public Service Electric and Gas Company, is on an entirely different scale than the upper part of the graph, showing the movement of energy between Public Service Electric and Gas Company and Staten Island Edison Corporation?

A. That is true.

Q. What is the relative difference in the scale upon which these two graphs are constructed?

A. Three to one.

Q. In other words, to make them directly comparable line for line it would be necessary to increase the size of the one colored in blue to three times its present size without extending the length of the graph?

A. Yes. Every ordinate in that lower scale would be increased.

Q. As a matter of fact, looking at the chart as a high bump colored in blue just after two-thirty a. m., as you show if there, it represents a flow of energy from Jersey Central Power and Light Company to Public Service Electric and Gas Company of something in excess of 10,000 kilowatts. Isn't that correct?

A. Yes. That is what that graph shows.

Q. Going directly above it and looking at the large block in orange showing the flow of energy from Public Service Electric and Gas Company to Staten Island Edison Corporation, while that line appears to be very much longer, Mr. Sibley, it represents only the flow of about 8200kw. Isn't that right?

A. It is in that neighborhood.

Q. Or 8400?

A. In that neighborhood. Each division represents four.

Q. Then, it is 8400?

A. Yes.

Q. So that the short line in blue has a greater value than the long line in orange.

A. The distance the graph is above the zero line; yes.

Q. What I stated is true, that the value of the line or the height of the line for the area I described as being colored in orange, although to the eye appearing very much longer than that in blue, nevertheless it shows a flow of only 8400 kilowatts whereas the one in blue shows something over 10,000 at that particular time?

A. Yes; that is right. I have no control over these graphs. These were just printed from the automatic machine.

Q. If the lower graph were constructed in such a fashion that it would be on the same scale as the upper graph, it would be more readily compared with the part of the graph representing the flow of energy from Public

Service Electric and Gas Company to Staten Island Edison Corporation?

A. That is true.

Q. In your study of the movement of electric energy during that time from Jersey Central Power and Light Company to Public Service Electric and Gas Company did you obtain the operating records of the Jersey Central Power and Light Company at their South Amboy plant for this period to determine just what transpired in the plant that indicated the manner of operation?

A. All I took from those sheets were the instrument readings.

Q. All you took into consideration were the instrument readings?

A. I don't believe there was any other operating information that was noted on those sheets.

Q. If there was, Mr. Sibley, you paid no particular attention to it? I mean if there was anything on there which indicated any violent or material change in the methods of operation. You would have been interested in it and you would have considered it?

A. Yes. It was not called to my attention, at any rate, I did not notice it.

Q. It has just been called to my attention that the graph itself, or the two graphs which you show on this exhibit, were taken from instruments in the Mechanic Street substation?

A. Yes; that is right.

Q. Now, I will have to change my other question a little bit. I suppose your answer will be the same. But did you obtain from the operating records of the Jersey Central Power and Light Company at the South Amboy plant any records or information indicating the methods of operation or what transpired in that plant to explain the variations in the flow of energy from Jersey Central Power and Light Company to Public Service Electric

and Gas Company during the period of time shown on your chart?

A. No, sir. I made no inquiry from the Jersey Central Power and Light Company dispatchers concerning any variation in the flow of electrical energy as shown on Respondent's Exhibit No. 8.

Q. In response to a question that was put to you on page 692 of the record, the question being: "Does not this graph also show that the increase in power taken by Staten Island Edison Corporation at this time from Public Service Electric and Gas Company result in increased generation on the system of the Public Service Electric and Gas Company", and then I asked to have the question read, there being some discussion, and then you answered:

"It shows that".

In response to that question and answer, Mr. Sibley, will you please refer to the chart and state whether or not the answer which you made to that question represents correctly your answer?

A. Before being able to obtain records from the graphic watt meter showing the ebb and flow of power between Staten Island Edison Corporation and Public Service Electric and Gas Company and the graphic watt meter showing the ebb and flow of energy between the Jersey Central Power and Light Company and the Public Service Electric and Gas Company it was my opinion that any change in power on the Staten Island Edison Corporation would not affect the flow of power from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company.

When I was able to obtain these records and look at them they bore out what I believed they would, and the inspection of this blue chart by me shows that there is no decided trend change at the particular time when the Staten Island Edison Corporation had an emergency and drew an unusually large amount of emergency power.

Q. The force of what you have said is, Mr. Sibley, that if the generators of Jersey Central Power and Light Company are sufficiently controlled through manual operation, then the result of the draw of Staten Island Edison Corporation upon the substation at Mechanic Street will not be reflected in the flow of energy from Jersey Central Power and Light Company to Mechanic Street? Isn't that true?

A. No, that is not true. I don't think that any draft of power by the Staten Island Edison Corporation from the Public Service Electric and Gas Company will either increase or decrease the amount of energy supplied from Jersey Central Power and Light Company to Public Service Electric and Gas Company.

Q. When this load from Staten Island Edison Corporation comes on to Mechanic Street substation unannounced, if we so assume, what happens to the generators supplying energy to the Mechanic Street substation?

MR. PAXSON: Whose generators?

MR. McALLISTER: Those supplying energy to Mechanic Street substation.

THE WITNESS: I believe that it would in this case.

BY MR. McALLISTER:

Q. I want you to relate your answer to the question. If you want the question repeated, it is all right with me. Do you?

A. Yes, if you please.

EXAMINER SPENCER: Will the reporter read the question, please?

(The question was then read.)

THE WITNESS: They supply the power required by Staten Island Edison Corporation.

BY MR. McALLISTER:

Q. They pick up the additional load?

A. That is right.

Q. What does this chart show as being one of the sources of power to Mechanic Street substation at the time the emergency load on chart No. 8 was required by Staten Island Edison Corporation at about 2:30 a. m. on August 13, 1936, Mr. Sibley?

A. Well—

Q. Now, just answer the question. There is only one generating source shown as supplying energy to Mechanic Street substation at that time so far as this chart is concerned, and I want you to name what that is.

MR. PAXSON: I object to that statement by counsel unless he brings out that this chart shows only one source of generation.

EXAMINER SPENCER: Counsel made a statement.

MR. McALLISTER: The question is perfectly clear, Mr. Examiner, and I insist upon an opportunity to pursue my questioning through without interruption.

EXAMINER SPENCER: I think counsel has a right to object to the question. Your question presupposes that there is only one generator supplying energy. It may have been testified to. I don't recall that there is any testimony on that point. If not, I think counsel for the Commission should establish that fact.

MR. McALLISTER: I said as shown on this chart. I have limited my question sufficiently.

EXAMINER SPENCER: Does this chart show the source of generation, Mr. Sibley?

MR. McALLISTER: I said one source of power flowing to Mechanic Street substation for that period which I have named—2:30 a. m., during the period of that emergency shown there in red. There is some little red over on this side of the exhibit (indicating); but the large block I am referring to.

THE WITNESS: The large draft of power, roughly at 2:25, showed no effect. The draft of power about 2:28 showed no appreciable effect.

Approximately three minutes after, or about 2:30, the flow from Jersey Central Power and Light Company was higher than it had been for twenty minutes.

The large draft of power at approximately 3:12 shows practically no effect.

MR. McALLISTER: Mr. Examiner, I just want to interrupt this long explanation because it is not responsive to the question. It is not in any way responsive to the question that I asked.

EXAMINER SPENCER: I agree with you about that. And we are going to get a response to the question, if he can answer that question.

Have you finished, Mr. Sibley?

THE WITNESS: I want to answer the question the way it wants to be answered.

EXAMINER SPENCER: You may proceed.

THE WITNESS: The demand by Staten Island Edison Corporation increased from 6,000 kilowatts to approximately 8,000 kilowatts at 2:33. At 2:33 on the lower chart there is a momentary increase from approximately 5,000 kilowatts to 7,500 kilowatts.

At the time Jersey Central Power and Light Company reached the maximum during this interval a trifle over 10,000 kilowatts, Staten Island Edison Cor-

poration was taking at that particular time about 8,300 kilowatts.

BY MR. McALLISTER:

Q. Have you finished your answer?

A. I believe I have completed the answer.

EXAMINER SPENCER: Now, Mr. Sibley—

MR. McALLISTER: Let me get at it another way, if you will, Mr. Examiner.

EXAMINER SPENCER: Let me get an answer to my question. From what source did that energy come?

THE WITNESS: I believe it came from generators on the Public Service Electric and Gas Company.

EXAMINER SPENCER: You may proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. You show on that chart energy flowing from Jersey Central Power and Light Company to Mechanic Street substation.

A. That is correct.

Q. In various quantities.

A. That is correct.

Q. That was one of the sources of supply of electric energy to Mechanic Street substation at the time this emergency demand came on Mechanic Street substation from Staten Island Edison Corporation. Isn't that true?

A. It may or it may not be so. From an inspection of the chart by me I do not believe the chart shows any evidence of that.

Q. Well, according to your own chart, didn't that energy from Jersey Central Power and Light Company flow from Jersey Central Power and Light Company to Mechanic Street substation. I mean didn't that energy

from Jersey Central Power and Light Company, according to your own chart, continue to flow from Jersey Central Power and Light Company to Mechanic Street substation?

A. It continued; but it was the same trend that had been flowing before that time. In fact, the trend became gradually less.

Q. But the flow of energy at the time the emergency load came on from Staten Island Edison Corporation from Jersey Central Power and Light Company to Mechanic Street substation continued? Isn't that true?

A. Well, it continued. I do not understand—

Q. I mean that at no time did the flow of energy from Jersey Central Power and Light Company to Mechanic street substation cease.

A. That is correct.

Q. Prior to the time this load came on Jersey Central Power and Light Company was supplying energy to Mechanic Street substation?

A. That is correct.

Q. You stated that when that load came on to Mechanic Street substation unannounced, as we assumed, that that load would divide among the generators which at that time were supplying energy to the Mechanic Street substation? Isn't that right?

A. As a general statement I think that is true, although I do not think the chart has demonstrated it at all that the generators of Jersey Central Power and Light Company contributed anything toward that.

Q. You said that if there was no manual control on the generators at the time this load was assumed to come on that load would be divided between the generators that were then supplying the load to Mechanic Street. Isn't that so?

A. As a general statement that is true.

Q. But isn't it absolutely true if there is no manual control of the generator?

A. Well, not exactly.

Q. To what extent isn't it exact?

A. To the extent that the characteristics of steam turbines differ among themselves.

Q. You mean—

A. The load characteristics.

Q. The load characteristics?

A. Yes.

Q. And the exact relation of the governors one to the other?

A. The regulating qualities of the units.

Q. That may affect the quantity, the percentage, if you want to use that term, or the basis upon which the load divides between generators, but without manual control all of the generators that at the time this sudden load comes on there will each respond to pick up the sudden demand? Isn't that true?

A. There is a tendency that way; yes.

Q. It is more than a tendency, isn't it? It is an absolute rule?

A. These indications are tied with this large system of the Public Service Electric and Gas Company.

Q. Now, will you just answer the question, please? And then you may explain it. Just answer the question. I want an answer to that question.

EXAMINER SPENCER: Will the Reporter read the question?

(The question was then read by the Reporter.)

MR. McALLISTER: Now, that question is one that can be answered,

THE WITNESS: The reason that a unit picks up—

BY MR. McALLISTER:

Q. Will you just answer the question? And then you may explain it.

A. Now let's get this thing right. Let me hear the question again, please.

(The question was then read by the Reporter.)

THE WITNESS: I would say that is generally true.

EXAMINER SPENCER: Gentlemen, at this time we will take a five minute recess.

(Thereupon, a short recess was taken, after which the following occurred.)

MR. PAXSON: Now, you can explain your answer.

MR. McALLISTER: I don't think he has any explanation.

EXAMINER SPENCER: Off the record.

(Discussion off the record.)

EXAMINER SPENCER: On the record. We will recess now for five minutes.

(Whereupon a short recess was had, at the conclusion of which the following occurred.)

EXAMINER SPENCER: The hearing will be resumed. You may proceed, Mr. McAllister.

BY MR. PAXSON:

Q. Have you any explanation, Mr. Sibley, or do you wish to add anything further?

A. Well, my answer to Mr. McAllister's question is purely theoretical. The only thing, that has been stated many times here, to change the power which an electrical generator will deliver is the amount of steam which is supplied to the turbine. An 8 or 10 thousand kilowatt draft by Staten Island Edison Corporation on the System of the Public Service Electric and Gas Company is small in comparison to their other loads. It is probably equivalent to any other of their large customers, and my opinion

would be that the drop in frequency there would be unnoticeable. I didn't examine the frequency chart for this particular time. If the examination of the frequency chart shows a continual ripple around the constant point—

BY MR. McALLISTER:

Q. (interposing) Prior to the draft on Mechanic Street by Staten Island Edison Corporation for this large block of electrical energy you stated very positively that Jersey Central Power and Light Company was supplying energy to Mechanic Street Substation, did you not?

A. Oh, yes, that is true.

Q. You also stated when that load came on to Mechanic Street it would divide among the generators that were then supplying energy to Mechanic Street Substation, isn't that right?

A. That is theoretically so.

Q. Isn't it an absolute fact?

A. I don't think so.

Q. In other words, am I to understand you to say that a load coming onto that substation will not divide among the generators that are supplying energy to that point if no manual control is exercised on the governors of those generators?

A. I don't think that is exactly true.

Q. Just tell me to the extent it is not true.

A. It would not be true. It depends upon the load curve. The load that a generator—impounding the steam that is admitted to the turbine is a function of the governor and the variation in speed in this case is very slight, and if steam turbines have a different relation between the frequency and the speed and the amount of steam they take, I think that would influence this answer.

Q. Although the generators that are supplying energy at that time are operated in synchronism and operating in parallel, isn't that true?

A. That is true.

Q. When that load comes on, to follow through the physical process, when that load comes on, it has a tendency to slow down the generators supplying that load, isn't that true

A. All of them.

Q. Without exception?

A. That is correct.

Q. When the generator slows down what happens to the governor?

A. That is where I say there is a difference. What happens to one governor, or what happens to the amount of steam which that governor would admit to the 30,000 kilowatt turbine would be different to the action of a larger turbine or smaller turbine.

Q. True, but in this operation one has a governor that is designed to manage the supply of steam to that turbo generator, isn't that true? You have a different governor on a smaller turbine designed to fit the requirements of that turbo generator, isn't that true?

A. As near as it can be adjusted.

Q. Without manual control those generators operating in parallel, supplying the load, will all respond when a sudden load such as you have there comes on to a line to pick up that load, all of them.

A. If the governors are sensitive to that amount.

Q. Do you know of any governor on these Systems, Staten Island Edison Corporation, Jersey Central Power and Light Company, Public Service Electric and Gas Company, that is not sensitive enough to respond to the load of 10,000 kilowatts?

A. I don't know anything about the governors on any of them.

Q. Do you know any type of governor that is so designed that will not respond to a load of that kind?

A. Well, how much load is there on each unit on

each generator? Here is 10,000 kilowatts divided among a lot of generators.

Q. How many generators?

A. Well, I don't know how many generators, but I imagine on the Public Service Electric and Gas System they probably had 300,000 KVA in operation at that time.

Q. At two o'clock in the morning?

A. Maybe. I believe their load was testibed to somewhere around half a million.

Q. Maximum annual load. You don't mean to say that came at this time in August at two a. m. in the morning?

A. I am unable to state what generators they have.

Q. Is that an element to take into consideration?

A. It is.

Q. Did you take that into consideration in answering Mr. Paxson yesterday? Did you investigate the facts to enable you to take that into consideration?

A. I don't know what my answer to Mr. Paxson yesterday was.

Q. I will read the question and answer to you:

"Q. Does not this graph also show that the increases in power taken by Staten Island Edison Corporation at this time from Public Service Electric and Gas Company resulted in increased generation on the System of Public Service Electric and Gas Company?"

And your answer was:

"A. It shows that."

A. I believe that is true.

Q. You believe the answer is true?

A. Yes, sir.

Q. Did you take into consideration these elements which you say must be taken into consideration before you can answer the question?

A. Yes, sir.

Q. You had all that information?

A. Well, in general.

Q. What information did you have to take into consideration in general?

A. Well, there are several things I consider. There was a draft of 8,000 kilowatts on what I assumed to be was 300,000 kilowatts running. Now that may be an error, but assuming it is 250,000 there is only a 4 per cent increase of power demand on the System of the Public Service Electric and Gas Company.

Q. You would have to take into consideration in that calculation, would you not, the generator at South Amboy, which is on the line there?

A. Well, we will put that in. I don't know how big that was, but you can put 50 more in so that it would bring it back to 300,000, which I assumed. Now this draft of approximately 8,400 divided by 300,000 is an increase in load of 2.8 per cent. Now I don't believe an increase in load of 2.8 per cent on any given number of turbines will increase the output of each turbine that 2.8 per cent. That is what I based my reply on.

Q. Without regard to the quantity of energy that would be picked up by these various generators that are on the line, would the impedance in the lines between Mechanic Street Substation and the generating plants have anything to do with the quantity that would be picked up?

A. No, sir.

Q. Nothing whatever?

A. No.

Q. The plant in Philadelphia, if it was on the line, the Philadelphia Electric Company was on the line and it was tied in all the way through, the plant in Philadelphia would pick up the same quantity as the plant at South Amboy?

A. Well, if you are going to include Philadelphia and

everything tied with it this load is so infinitesimal it is indeterminate.

Q. Would it divide all the way down there?

A. Theoretically I suppose it would.

Q. Actually?

A. No, I don't believe so.

Q. What defines the limits over which it will divide?

A. I don't think you can tell. You have here, just for argument's sake, taking a draft of 10,000 kilowatts anyhow, connected to the whole interconnected system there is in the neighborhood of two and one-half million kilowatts, well 10,000 kilowatts into two and one-half million is a very small percentage. It is .4 of 1 per cent. Now these machines aren't built to govern within .4 of 1 per cent.

Q. Well, as a matter of fact when this 10,000 kilowatts come on there it just goes wandering, does it, without any generator being able to pick it up?

A. I don't believe there would be any possible way of determining which generators actually pick up an increase of .4 of 1 per cent.

Q. Let's go back to Mechanic Street. They have a certain load at Mechanic Street that is being supplied from certain sources when this emergency energy comes on, isn't that true?

A. Yes.

Q. One of those sources of energy was Jersey Central Power and Light Company?

A. Yes.

Q. Now I am asking you if we are to understand you as saying that when that demand of Staten Island Edison Corporation came on to Mechanic Street Substation, as it did, as shown by your graph, that without manual control at South Amboy, that load coming onto Mechanic Street Substation unannounced, as we assumed, would not affect the generators in operation at that time in the

South Amboy plant of Jersey Central Power and Light Company?

A. I believe that is true from a practical standpoint.

Q. It would affect it, is that what you say?

A. No, I believe it would not affect it. The only thing that can change the energy flowing between the Jersey Central and the Public Service is the amount of steam that is admitted by the governor to the steam turbine.

Q. Through the governor or manually?

A. I beg your pardon?

Q. Either through the governor or manually.

A. That is correct.

Q. Well, eliminate the manual control.

A. All right, sir. Now automatically that is regulated by a change in the turbine speed.

Q. When the load comes on it slows the speed and that automatically pushes up the governor and permits an inflow of steam, isn't that true?

A. Now, what I am attempting to say here, I don't believe this comparatively slight increase in load actually changes the speed of the System.

Q. And it would not, therefore, be reflected in any way on the speed of any generator at all?

A. As a practical matter, I don't believe it would.

Q. A load of 8,400 kilowatts would not be detected?

A. .4 of 1 per cent.

Q. You said that .4 of 1 per cent was not the proper amount because you said it would not divide, as a practical matter, back into that range of surmise that was brought into the picture.

I am asking you as a practical matter, leaving percentages out, and your answer is, as I understand it, that the South Amboy plant in your opinion as an electrical engineer familiar with the operation of these plants, that

in your opinion that load would not affect the quantity of energy generated by the plant at South Amboy.

A. That is my opinion, and I believe Respondent's Exhibit No. 8 will show it.

Q. Well, what load would be required before there would be any change in the operation of the plant at South Amboy?

A. I don't know, but it would be in considerable excess of these cable tie lines.

Q. That generator at South Amboy at no time would be affected by a change in load of 10,000 kilowatts?

A. On Public Service Electric and Gas Company?

Q. On Public Service Electric and Gas Company, no matter where it came on.

A. I don't think it would. We are dealing with large quantities here.

Q. Would 25,000 affect it? 25,000 kilowatts as a sudden load on Public Service Electric and Gas Company, would that affect the speed of the generators?

A. I don't think so.

Q. You don't think so?

A. No.

Q. All right. Now yesterday, or the day before when you were on the stand, you made some reference to ammeters on the transformer bank at Mechanic Street Substation, did you not?

A. I believe I did.

Q. You produced a dial or the face from one of the dials of the ammeter which you state you had taken from a substation of the Metropolitan Edison Company, is that true?

A. That dial does not represent the ammeter on the transformer.

Q. It does not?

A. No, sir.

Q. You didn't so state on the record?

A. If I did I didn't intend to so state. That is the ammeter on the cables going to supply the General Cable Company.

Q. The record is particularly silent in that regard and I assume when you say a like situation prevailed there you were referring to the same kind of ammeter, but it isn't. We can forget that. As a matter of fact it is not the same ammeter.

A. It is the same kind of instrument.

Q. What does the dial show?

A. The dial is bigger than that.

Q. What does it show as a range?

A. I believe from zero to 2,000.

Q. Here was the question:

"Q. And the same criticism which applies to General Cable applies to all these other readings which are expressed in amperes?"

And your response was:

"A. It applies to the ammeters on the transformers, readings of power for local disfribution."

MR. PAXSON: What page is that?

MR. McALLISTER: That is on page 705.

BY MR. McALLISTER:

Q. What are the numerals that appear on that dial?

A. I believe from zero to 2,000 amperes.

Q. Then, what you said with respect to this dial did not apply to that?

A. I believe it applies to it to a certain degree. The point that I criticised about these instruments was,—

Q. (interposing) Let us,—

MR. PAXSON: (interposing) Let him explain the answer.

MR. McALLISTER: I am.

MR. PAXSON: You don't want him to.

EXAMINER SPENCER: Let the witness explain.

MR. McALLISTER: I want him to answer the question.

MR. PAXSON: He is going to explain. He has answered the question categorically. Now he is going to explain.

MR. McALLISTER: Mr. Examiner, I ask you to straighten out on the record as to the question before the witness and I want an answer.

MR. PAXSON: He answered and then started to explain, and you cut him off.

EXAMINER SPENCER: Read the question.

(Whereupon the reporter read the pending question and answer thereto as recorded.)

EXAMINER SPENCER: You may proceed.

THE WITNESS: The pointer of the instrument which moves proportionately to the amperes in it travels over a very limited range. I found frequent readings entered on the log sheets where 10 amperes had been approximated on an ammeter where the lowest mark is 50.

BY MR. McALLISTER:

Q. What lines were those?

A. Those lines were the two cable circuits going to the General Cable Company—

Q. (interposing) Now with respect—

MR. PAXSON: (interposing) Let him finish. He has got a right to finish but you apparently want to stop him again.

MR. McALLISTER: No.

MR. PAXSON: You want to stop him.

EXAMINER SPENCER: You may proceed, Mr. Sibley.

THE WITNESS: In fact I found on one day 258 notations on the log sheet where the readings were of the same amount. They were all noted as 10 amperes on this instrument.

BY MR. McALLISTER:

Q. Which one is that again? What line was it on?

A. That is on the 6 ammeters located on the two circuits running to supply the General Cable Company.

Q. All right, let's go over to the ammeters on the transformer bank, the local load. What readings did you find on those ammeters?

MR. PAXSON: Do you want that exhibit before you, Mr. Sibley, the Commission put in?

MR. McALLISTER: No. No, he doesn't. He is testifying from his own information.

MR. PAXSON: Like Mr. Grimsley did, I recall.

MR. McALLISTER: Yes, absolutely.

MR. PAXSON: Yes.

BY MR. McALLISTER:

Q. Is that information to which you are referring information which you obtained from the record yourself Mr. Sibley?

A. Yes. These are copies of these log sheets in the offices, located in the offices of Public Service Electric and Gas Company.

Q. And this information that was supplied was under your direction?

A. Yes, I was there when all this was taken there.

Q. All right.

A. I guess I will have to refer to notes that I don't have here on the witness stand, but I will say in general the same thing applied, but not to quite such a great extent.

Q. Approximately what were the readings as you observed them on the instruments, or did you observe them on the instruments?

A. No, I didn't observe the readings on the instruments.

Q. You didn't go to the instruments themselves to read and to see whether or not it was possible by looking at that time to determine just what the reading was? I mean those on the transformer banks, that is, that read from zero to 2,000?

A. The lowest division of that ammeter, as I remember was 500 amperes.

Q. Isn't it 200, in fact?

A. The lowest division?

Q. The lowest division.

A. Well, I don't remember.

Q. Well, it was 200 in fact, would that alter your conclusion?

A. Well, 200 amperes is equal to approximately 1,460 KVA. Then that condition would exist on both transformer banks so any reading less than 3,920 KVA on the transformers would be below the lowest division of the scale.

Q. Will you check this calculation of yours, again, Mr. Sibley, and see if you have not made an error when you say that 200, a reading of 200 would require a load of something close to 4,000 KVA?

A. It is substantially that.

Q. Will you read into the record the figures you used in arriving at that computation so that it can be checked?

A. Yes. On the assumption that the voltage of the primary circuit is 4,150 volts, 200 amperes in this circuit, in this three phase circuit is equal to 1,460 KVA. As there are two banks of transformers in parallel, I have combined the power of both banks, and on the assumption that there is 200 amperes in each of the six wires, the KVA would equal approximately 3,920.

MR. PAXSON: Just a suggestion off the record.

EXAMINER SPENCER: Off the record.

(Discussion off the record.)

THE WITNESS: Then, may I correct this?

MR. McALLISTER: You may correct it.

EXAMINER SPENCER: Just a moment, until Mr. Paxson returns.

All right, proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. Will you just correct the record and make whatever explanation you can? It was a mere matter of addition and a difference,—

A. (interposing) Let me get out of this as gracefully as I can. Will you read that?

EXAMINER SPENCER: Read the answer.

(Whereupon the reporter read the answer as recorded.)

THE WITNESS: Now, may I say 2,920.

EXAMINER SPENCER: Let the record so show.

BY MR. McALLISTER:

Q. On your Exhibit No. 6, Mr. Sibley, what is the scale in constructing the lines that you show on that chart to represent kilowatt hours above and below the median

line, marked zero, which I think you assume to be your base line?

A. This graph was plotted on what is known as a millimeter paper, defines in both directions, the small divisions, both vertical and horizontal, are based 1 millimeter apart. The first line above or below the zero line is 1 millimeter. It represents 1/10 of one centimeter, which is shown to indicate 20,000 kilowatt hours. Therefore, the distance between the zero line and the first line, either up or down represents 2,000 kilowatt hours.

Q. Now, looking at the right hand side of that chart, you show a figure zero on the dark line, isn't that true, Mr. Sibley?

A. That is true.

Q. And above and below that you show a figure 20,000, isn't that true?

A. That is true.

Q. Now when you refer to the distance of one millimeter, you are not referring to the line which appears to be midway between the zero line and the 20,000 line, do you?

A. I am not. That is 5 millimeters up.

Q. Five millimeters up? The millimeter line to which you refer appears very indistinct at certain points on this photostat?

A. That is true.

Q. And it is the distance between two of those indistinct lines?

A. It is the distance between the lighter lines.

Q. All right, but let us refer to the heavier lines which we see plainly on the perpendicular line adjacent to the figures to which you have just been referring.

Just above the zero line there is a distinct line midway between the zero line and the 20,000 line. That would represent, if a line was drawn at that level, a flow of energy equal to 10,000 kilowatt hours?

A. That is correct.

Q. So that a millimeter would be 1/5 of the distance between the zero line and that line which would read 10,000. Is that true?

A. That is true.

Q. Now, looking at the dial which you have before you there, will you state for the record how many millimeters the distance is from the reading 50 to the zero reading on the face of that dial?

BY MR. PAXSON:

Q. What are you using to determine that, Mr. Sibley?

A. Well, I will use a millimeter scale.

BY MR. McALLISTER:

Q. Do you have a millimeter scale?

MR. PAXSON: I didn't want to interrupt. I just wondered if you wanted him to try to guess at it or measure it exactly.

MR. McALLISTER: I would rather he measure it exactly.

THE WITNESS: This was the handiest millimeter scale I had, a piece of that paper. I don't know why, did I hurt anything?

BY MR. McALLISTER:

Q. No, you didn't hurt anything.

A. The distance between zero and 50, the space in there at the bottom of the lower arc is 8 millimeters exactly.

Q. And what is it at the top of the arc?

A. The top of the arc is 8.6 millimeters.

Q. Of course the face of the dial, as you have it here, means nothing without it being attached to an instrument, and there being some indicator or needle which would point to the reading at a particular time?

A. That is right.

Q. What is the size of the point of the needle on this instrument expressed in millimeters?

MR. PAXSON: Just a moment, you don't have a needle here, do you? What are you measuring?

MR. McALLISTER: I am glad you raised the point rather than I.

THE WITNESS: Well, of course I don't have the needle here as far as that goes.

BY MR. McALLISTER:

Q. The fineness of the instrument and the kind of needle might have some bearing on the ability to read its location within that area from zero to 5, might it not, Mr. Sibley, zero to 50?

A. Yes, but the indication from zero to 50, I don't believe is proportional to the distance. It is not a straight line function. It will be observed from A. C. ammeter that the divisions reading equal quantities of amperes are always closer together near the lower portion of the dial.

Q. Assuming for the time that the proportion would be in the same relationship as the proportion between other marked numerals is, could you read a needle which was indicating at a point midway between zero and 50 with a degree of accuracy? I mean by that could your eye detect that needle was midway between zero and 50?

A. I probably could. I have had years of experience in meter work. I was in meter work seven or eight years.

Q. I will ask you one other question, Mr. Sibley, in that regard. Although the proportion between various parts of that dial indicated by marked numerals may vary, isn't it a fact that between each marked numeral each subdivision is equal?

A. Oh, no.

Q. The spacing varies between various marked numerals, but the space between any numeral and the next higher numeral is exactly the same?

A. Oh, I don't think so.

Q. Which division between 50 and 100 on up would be a proportionate increase in the distance as you proceed toward 200?

EXAMINER SPENCER: What is the question?

BY MR. McALLISTER:

Q. Which division between 50 and 100 on up would be a proportionate increase in the distance as you proceed toward 200?

A. As a matter of fact, Mr. McAllister, these actual amperes are put through this ammeter and lead pencil marks are noted on it, and after that India ink is applied. The A. C. ammeter is not a perfect device. It doesn't have a good scale like a D. C. ammeter.

Q. Would you provide a scale in somewhat the same manner as you would provide a scale on a thermometer?

A. Yes, somewhat like that. That is the way it is done, under calibration.

Q. Under calibration?

A. Yes, sir.

Q. For each instrument?

A. Yes, sir.

Q. An experienced operator, Mr. Sibley, who has had years of experience in reading those ammeters could read it as well as you could, could he not?

A. Well, if he knew as much as I did about instruments and his eyes were as good, I guess he could.

Q. If he were instructed to read it according to certain definite positions of the needle and he followed those instructions and had good eyesight, why, he would be able to indicate on the chart the information which would be as reasonably accurate as the information which you could record, would he not?

A. Well, when you are working with such a small needle deflection as this is, the width of the line, the judg-

ment of its position and the error due to parallax, throws this thing out, so those readings are not dependable.

Q. As far as the load on the cable going from Mechanic Street is concerned are there any other instruments in that substation which will indicate more accurately what the load is on that line than these instruments?

A. I don't believe so. They told me there was not. I attempted to make these calculations and that was the only instrument available to me, the readings from that instrument were the only ones available to me.

MR. McALLISTER: Mr. Examiner, at this point I would like to interrupt the cross-examination of this witness and put on the stand at this time Mr. Bass of the Public Service Electric and Gas Company. I think he has arrived and I promised to let him get away as quickly as he could. I merely wanted to clear up a question of fact regarding the operation of the Mechanic Street Substation and what is available down there, and what the records show, and it is one of those things over which we do not have as complete control as we might have, but I don't think the questions will take very long. I would like to call him right now if I might be permitted to do that.

Do you have any objection, Mr. Paxson, to my interrupting the cross-examination of this witness?

MR. PAXSON: Well, I certainly don't think it is proper for rebuttal testimony to be interposed.

MR. McALLISTER: Well, it—

MR. PAXSON: (interposing) Just a moment, before respondent's case is all in. If you are through with Mr. Sibley, are you through with Mr. Sibley?

MR. McALLISTER: No, unfortunately, I am not.

MR. PAXSON: You have had witnesses sitting around here for two weeks.

EXAMINER SPENCER: Suppose you proceed with your cross-examination.

MR. PAXSON: I think we ought to finish with Mr. Sibley first. We ought to have some order there.

EXAMINER SPENCER: And interrupt before the redirect?

MR. McALLISTER: It is a question of convenience to another operating company. I didn't want to put him on until I had completed the cross-examination of the witness regarding this matter I wanted to clear up by Mr. Bass.

EXAMINER SPENCER: Is Mr. Bass here?

MR. McALLISTER: Yes, he is. I think I was told a little while ago that he had arrived, and I promised him as nearly as I could promise anybody that I would use every means within my power to permit him to get a train so that he could get back to Elizabeth, New Jersey this afternoon, for the simple reason that he has some important matters that he must attend to, and in order to clear up the record as to what the facts are, he was willing to come down here and state them rather than sending somebody up there.

EXAMINER SPENCER: How long will it take?

MR. McALLISTER: It will not take me over ten or fifteen minutes.

EXAMINER SPENCER: I recognize the fact, Mr. Paxson, you are entitled as attorney for the respondent to have the case put on in regular order and have this cross-examination completed and the re-

direct, for that matter, but as a matter of courtesy, if you have no objection we will let Mr. Bass testify. It will take only a few minutes.

MR. PAXSON: All right, if he will tell me what he wants to prove by him.

EXAMINER SPENCER: What do you propose to prove?

MR. McALLISTER: Facts with respect to the records and the instruments that are in operation at Mechanic Street Substation.

MR. PAXSON: I will consent if I will be given a reasonable opportunity to prepare cross-examination of Mr. Bass. I am not going to have Mr. Bass rushed in here and rushed out, with a lot of technical data and not have an opportunity to adequately cross-examine him.

EXAMINER SPENCER: You will have the opportunity.

MR. PAXSON: I do not want him put on without having time to consider the questions in the light of this record of proper and adequate cross-examination.

EXAMINER SPENCER: You are entitled to that.

MR. PAXSON: All right, with that understanding I have no objection to going forward.

EXAMINER SPENCER: All right, now is Mr. Bass here?

MR. McALLISTER: I will call him.

EXAMINER SPENCER: Gentlemen, we will take a recess for three or four minutes.

(Short recess.)

EXAMINER SPENCER: The hearing will be resumed. Let the record show that upon request of counsel for the Commission and with the consent of counsel for the respondent, upon the condition that he be permitted time in which to prepare questions for cross-examination, the cross-examination of the Witness Sibley is temporarily suspended and the Witness Bass recalled, as a witness for counsel for the Commission. You may proceed, Mr. McAllister.

(Witness temporarily excused.)

Whereupon

P. B. BASS,

a witness recalled for and on behalf of the Federal Power Commission, having been previously sworn, was examined and testified further as follows:

Redirect Examination

BY MR. McALLISTER:

Q. Mr. Bass, at Mechanic Street Substation do you have various ammeters on the circuits connected with your local load from that substation?

A. We have.

Q. Will you tell us what the range of the reading on those ammeters is?

MR. PAXSON: Just a moment. I don't recall what Mr. Bass' qualifications were and I don't know what he is going to ask him. As I recall I didn't object to Mr. Bass testifying before. He was telling us these were records and he was keeper of the records. I don't think Mr. Bass is qualified in any way except as a keeper of records. Maybe he has the qualifications, I just don't know.

EXAMINER SPENCER: You may read the record as to the qualifications of Mr. Bass or Mr. McAllister can qualify him, whichever will require the least time.

MR. McALLISTER: I would like to have the question answered and then I will have Mr. Bass state his qualifications.

EXAMINER SPENCER: All right, you may answer the question with that understanding.

THE WITNESS: May I have the question?

EXAMINER SPENCER: Read the question.

(Whereupon the reporter read the pending question as recorded.)

THE WITNESS: You would have to make your question more specific as to which ammeters you are referring to.

BY MR. McALLISTER:

Q. I am referring to the ammeters, Mr. Bass, which are in the circuits connected with the transformers, indicating the local load on the Mechanic Street Substation.

A. You want the range of those ammeters?

Q. The instruments or dials.

A. They read from zero to 2,000 amperes. That is the range of the scale of the ammeters.

Q. And what is the first marked subdivision on that scale?

A. 200 amperes.

Q. Now I believe you also have certain ammeters connected with the circuits which lead to General Cable Company?

A. That is correct.

Q. Are those ammeters, in so far as the scale on the dial is concerned, the same as the ammeters which are connected with the local load?

A. No, they have a smaller range, zero at 200.

Q. Zero to 200?

A. Yes, sir.

Q. And the lowest marked indication on that scale is what?

A. 50 amperes.

Q. And is this dial which I show you similar to the dial which is on the ammeters which are installed and connected with the General Cable Company load at Mechanic Street Substation?

A. I would say that this dial is similar to, if not an exact duplicate of the dial that is on the ammeters.

Q. Mr. Sibley testified this morning that the readings on the various dials are calibrated according to the flow of energy as measured through the ammeter in much the same fashion that a thermometer is tested and ranged, each range and each dial being constructed individually to make allowances for the vagaries in the different instruments and, taking those ammeters into consideration, I presume that this dial would be as nearly the same as the one which is on the ammeter at Mechanic Street Substation leading to the General Cable Company as those variations will permit, is that your understanding, Mr. Bass?

A. The question is kind of involved.

MR. PAXSON: It is too involved for me to understand. I don't know just what you are driving at.

BY MR. McALLISTER:

Q. I mean they do not make up a set of dials and then indiscriminately insert this one and that one into a set of ammeters, but, having constructed the ammeters, they arrange the readings to fit the individual instrument?

A. I get what you mean, yes. That is correct.

Q. And due to the difference in the instruments there may be a variation in this dial as compared to the dial ac-

tually in place on any of the ammeters which you have in your station?

A. That is true.

Q. That variation due to the vagaries in those instruments themselves would—

A. (interposing) As I said before, as near as I can picture it, this is about the same as the dial on the General Cable meters.

Q. Now, if there is an ammeter reading between zero and 50 indicated by the position of the needle at a particular time, what have you to say with respect to the accuracy or reasonable accuracy of that reading?

MR. PAXSON: Will you define the words reasonable accuracy?

MR. McALLISTER: I will let the witness define that when he finishes his answer, Mr. Paxson.

EXAMINER SPENCER: You may proceed.

THE WITNESS: Well, any reading below 50 is not as accurate as the readings would be above 50. That is, the man reading the pointer between zero and 50 has to divide in his own mind that section of the scale and then take a reading depending upon where the pointer is. That i he would have to estimate the reading.

BY MR. McALLISTER:

Q. In other words, if it was midway between zero and 50 how would it be read according to the instructions under which the station operators at Mechanic Street Station perform their duties?

A. If the needle was between, midway between zero and 50 he would put down a reading of 25 amperes.

Q. And if it ranged close or ¾ of the area between zero and 50, what would his reading be?

A. They read to say 10, 20, 25, 30 or 40 or 50 amperes, depending on where the needle is.

Q. In other words, they don't get down to a subdivision smaller than 5 or 10?

A. 5 or 10 amperes.

Q. 5 or 10 amperes?

A. 5 or 10 amperes; yes, sir.

Q. Do you have any other instruments connected with the circuits which go to General Cable Company which would indicate the varying loads from Mechanic Street Station to General Cable Company?

A. We have at General Cable Company our meters which are used to bill General Cable for the amount of power that they use and also demand instruments for recording the demands of the load at General Cable.

Q. You say the demand meter, is that a recording meter, a graph recording meter so that the readings at various times will be recorded automatically by the instrument?

A. It is a graph type instrument, that is correct.

Q. And this instrument would show for certain intervals the load of the General Cable Company from Mechanic Street Substation, would it not?

A. It will show the demand of General Cable Load.

Q. Will you explain what that is, Mr. Bass?

A. By demand I mean the total load being drawn at any particular instance.

Q. Now, why do you maintain ammeters in the circuits leading to General Cable?

A. In order that we may determine what the flow of current is to General Cable.

Q. That is the load?

A. The load.

Q. And does it also serve as a means for determining whether or not the line is overloaded or not?

A. Oh, yes, if there is any question about the line being overloaded we would have to depend on the ammeters to tell us.

Q. What have you to say, Mr. Bass, with respect to the accuracy of the recordings and records which you maintain showing the load on Mechanic Street Substation in so far as your records indicate that load which goes to what is termed local distribution from that substation?

A. Are you referring now to the transformer ammeters or to the ammeters which are used to measure the flow of current from the individual feeders leaving Mechanic Street to serve the local load?

Q. I mean the first to which you have referred, not the feeders going out from the transformer bank, but those feeders which you might say are on the transformer bank.

A. Those instruments are checked periodically by our laboratory and I would say that they are reasonably accurate. That is by reasonable, I would certainly think that they would be 95 per cent correct.

Q. As accurate as any instrument can be that is maintained and operated in a substation?

A. They are accurate. As I say 5 per cent or so, that is within reason. All you could expect.

Q. Do you rely upon the readings from those ammeters connected with the transformer bank, I mean the ammeters which really show the flow of energy from the bus and through the transformers exclusive of the ammeters on the circuits going out from the transformers to serve individual customers or areas of territory which you reach?

A. We rely on those ammeters on the transformer banks to plot the daily load curve for that substation.

Q. Is that load curve plotted from the instrument readings that are recorded on the log sheets at the various intervals half-hourly from 6 a. m. to midnight and hourly from midnight until 6 a. m.?

A. That is correct. These readings are taken by the operator and totaled and the operator has a table which converts the total of the ammeter readings into KVA load, which is the load on the substation.

Q. And are these records in your opinion correct and true?

A. Oh, positively. We use them for all of our System studies, studies of the load on a given substation.

Q. Mr. Bass, what is your position with Public Service Electric and Gas Company?

A. I am assistant division superintendent, Central Division.

Q. How long have you been with Public Service Electric and Gas Company?

A. Since August, 1921.

Q. Are you a graduate electrical engineer?

A. I graduated as an electrical engineer at the University of Virginia in 1920 and took a post-graduate course at the Massachusetts Institute of Technology and received a degree in 1922 as Master of Science in Electrical Engineering.

Q. Now, will you tell us briefly what has been the nature of your experience and what positions have you held during all that time you have been with Public Service?

A. First I was employed as what is known as a cadet engineer and went through the cadet engineering training course for a period of three years. At the end of that time I was assigned to the electrical distribution department in the Central Division and I worked there as an engineer in the distribution department until around 1926, when I was transferred for a period of about a year to our general offices in Newark, where I was in the office of the distribution engineer. I was then transferred back to the Central Division in the office of the division superintendent. Before I went to Newark I was in the Elizabeth dis-

trict, which is one of the five districts in the Central Division.

Around about 1930 or 1931 I was made assistant to the division superintendent, Central Division, and on January 1, 1938, I was made assistant division superintendent.

Q. Now will you tell us, Mr. Bass, something about the character of the work which you have been called upon to perform during the time you have been with Public Service as to operation, construction and that type of work, taking into consideration the major division of the work?

A. In the distribution department we maintained and constructed overhead lines, also underground lines and we make engineering studies and submit recommendations to our general offices covering extensions, new lines, and we also study the loads on our circuits in order to determine when a circuit needs to be relieved, when we need additional transformer capacity at a substation, and also make recommendations covering new transmission lines. In other words in addition to covering operation and maintenance, we also make our own load studies and thereafter recommendations to our general office for reenforcements and additions to the plant.

Q. Do any of the generating plants of the Public Service Electric and Gas Company fall in your Division? I mean are any of the generating plants of Public Service Electric and Gas Company located in the Central Division?

A. The only generating plant is Perth Amboy, we have no jurisdiction over that plant. That comes under the generating department.

Q. That comes under the generating department?

A. That is correct.

Q. And that is maintained as cold standby at the present time?

A. That station has not been in operation for four or five years or longer.

Q. Why are you concerned with the loads on your Division, Mr. Bass?

A. Well, we are looking out for service to our customers. We don't want to have overloaded feeders and we want to insure our customers proper service.

Q. And I think as you stated at the time you appeared as a witness in this case previously, Mr. Bass, on September 28th, that keeping of the records, the substation employees and the like at Mechanic Street comes under your direct supervision and control?

A. That is correct. We take the current as it leaves the generating station, maintain and construct the lines from the point where those lines enter our division and we operate and maintain substations in the Central Division. That work comes under my supervision.

Q. The ammeters on the transformer banks, the ones to which we have just referred, not those leading away from the circuits to individual customers, are on the 4,000 volt side of the transformer?

A. That is correct.

Q. What is the voltage on the other side of the transformers, approximately?

A. 26,400 volts.

Q. And during the periods of average daytime loads on the transformer banks at Mechanic Street Substation, Mr. Bass, what would be the range of the ammeters, the indicators of the ammeters?

A. You mean the range of the needle?

Q. Yes.

A. You will have to define what you mean by average load. I happen to know what the peak load is on the substation and of course it varies from the peak load down to one or two thousand KVA, I will say. Now the full load current on each of the two transformer banks at Mechanic Street Substation is around 11,000 amperes.

Q. And the low load would be about what? Did you mean 1,100 or 11,000?

A. It should be 1,100 amperes, instead of 11,000.

Q. At time of low load?

A. It probably reads around 200 amperes.

Q. And the average during the day?

A. Anywhere from 2 to 400 amperes or thereabouts.

Q. And during the heavy time it would be around 1,100?

A. No, that is the full load rate on the transformer bank.

Q. I see.

A. We keep two transformer banks in service.

Q. The other times it would be 2 to 4 hundred?

A. That is right.

Q. I see. In determining the loads on various circuits throughout the network in the Central Division, Mr. Bass, do you rely upon the readings and calculations made from the readings at Mechanic Street Substation as well as readings from other substations under your jurisdiction?

A. That is correct.

Q. That is the basic data upon which the calculations of that character are made, is it not, Mr. Bass?

A. Yes, it is.

MR. McALLISTER: I may have one more question. Just a moment. (After a pause.) You may cross examine, Mr. Paxson.

MR. PAXSON: Just a second.

EXAMINER SPENCER: All right. Gentlemen, we will recess until two o'clock. The witness states he can't get his train before three or four o'clock and it is satisfactory with him to recess now.

MR. McALLISTER: All right.

(Whereupon, at 1:05 o'clock p. m., a recess was taken until 2:00 o'clock p. m. this day.)

Afternoon Session

(Met, pursuant to the recess, at 2:00 o'clock p. m.)

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

P. B. BASS

resumed the witness stand and, having been previously sworn, testified as follows:

Direct Examination (Resumed)

BY MR. McALLISTER:

Q. Mr. Bass, I believe you were requested to secure from the graphic meter on the load of the General Cable Company, the readings for certain periods. Now, will you be good enough to read into the record the record which you obtained from those graphs and the time that corresponds to the readings?

A. These are the readings that I gave you yesterday morning?

Q. That is right.

MR. PAXSON: May I have the question read, Mr. Examiner? I did not understand it.

EXAMINER SPENCER: Will the Reporter read the question please?

(The question was then read.)

EXAMINER SPENCER: You may proceed.

THE WITNESS: For January 26, 1937, at 8:30 p. m., 2400 kilowatt demand; 9:00 p. m., 2150 kilowatts; 9:30 p. m., 2450 kilowatts; 10:00 p. m., 2700 kilowatts.

August 5, 1937, 7:00 a. m., 2020 kilowatts; 7:30 a. m., 1150 kilowatts; 8:00 a. m., 1000 kilowatts.

November 16, 1937, 7:00 p. m., 770 kilowatts.

December 15, 1937, 8:30 p. m., 2300 kilowatts; 9:00 p. m., 2120 kilowatts; 9:30 p. m., 2250 kilowatts; 10:00 p. m., 2220 kilowatts.

March 22, 1938—

MR. PAXSON: Just a moment, please. I object to the introduction of any testimony for any period subsequent to March 14, 1938 as not pertinent to this issue and having no bearings thereon.

EXAMINER SPENCER: The objection is overruled. An exception for counsel for Respondent is noted.

You may proceed, Mr. Bass.

THE WITNESS: March 22, 1938, 9:00 a. m., 2020 kilowatts; 9:30 a. m., 2250 kilowatts; 10:00 a. m., 2020 kilowatts.

May 20, 1938—

MR. PAXSON: I have the same objection, Mr. Examiner.

EXAMINER SPENCER: Yes; it is noted.

MR. PAXSON: And the same exception?

EXAMINER SPENCER: The objection and exception will be noted to each of these readings subsequent to March 14, 1938.

THE WITNESS: May 20, 1938, 10:30 a. m., 2120 kilowatts; 11:00 a. m., 2250 kilowatts; 11:30 a. m., 2220 kilowatts.

May 23, 1938, 10:30 a. m., 192 kilowatts; 11:00 a. m., 192 kilowatts; 11:30 a. m., 192 kilowatts.

July 25, 1938—

MR. PAXSON: Do I understand my exception runs to all of these, Mr. Examiner?

EXAMINER SPENCER: Yes, Mr. Paxson.

MR. PAXSON: Each and every time?

EXAMINER SPENCER: Yes.

THE WITNESS: July 25, 1938, 3:00 p. m. 2100 kilowatts; 3:30 p. m., 1300 kilowatts; 4:00 p. m., 660 kilowatts.

MR. PAXSON: May I ask for an offer as to what counsel intends to show by these readings?

EXAMINER SPENCER: Will counsel for the Commission indicate the purpose of this question and response?

MR. McALLISTER: To show the loads on Mechanic Street substation so far as the General Cable Company's requirements are concerned for the days and the times that were indicated by the witness.

EXAMINER SPENCER: And is that related to any other testimony that has been introduced?

MR. McALLISTER: Yes, Mr. Examiner. It is related to the testimony shown on Exhibits 13 and 16.

EXAMINER SPENCER: All right.

MR. McALLISTER: I mean it is related to information on Exhibits Nos. 13 and 16, about which testimony has been offered.

EXAMINER SPENCER: I thought that was what it was.

MR. McALLISTER: You may cross-examine, Mr. Paxson.

Cross Examination

BY MR. PAXSON:

Q. Mr. Bass, what kind of a meter was that from which you took these readings which you have just recited?

A. That was the demand meter which is installed at the General Cable Company's plant which is used to measure the demand for which we bill the customer.

Q. What type of demand meter was it?

A. I don't happen to know the type. I will say this, that it was a recording instrument.

Q. Was it what you call a graphic meter?

A. A graphic meter. That is right.

Q. Now, Mr. Bass, are you a meter expert?

A. I am not.

Q. Mr. Bass, you told us this morning, I believe, that you are assistant superintendent of the Central Division of the Public Service Electric and Gas Company, which includes the Mechanic Street substation?

A. That is correct.

Q. And you are concerned only with operations?

A. That is right. I am in the operating department.

Q. You are in the operating department?

A. Yes, sir.

Q. Mr. Bass, at Metuchen you have a large substation with a large amount of capacity? Is that correct?

A. That is correct. We call that the Metuchen switching station as distinguished from the Metuchen substation.

Q. There are four circuits from Metuchen leading into the Mechanic Street substation? Is that right?

A. There are two 26000 volt circuits which feed direct from Metuchen to Mechanic Street, and two others which feed to Mechanic Street by way of intermediate substations.

Q. Mr. Bass, is it or is it not possible to carry all of

the Mechanic Street load, including the Staten Island, from Metuchen?

MR. McALLISTER: Unless the question is made more specific as to the load and conditions or unless the witness specifies the conditions in his answer I object to the form of the question.

MR. PAXSON: I specify the maximum load at any time on Mechanic Street substation.

MR. McALLISTER: The maximum load as to what?

MR. PAXSON: The maximum load at any time on Mechanic Street substation. That means any amount of energy drawn out of that substation in any and all circumstances.

MR. McALLISTER: I must still object to the form of the question unless it is tied to some particular time when the load at Mechanic Street might be known or unless it is stated.

MR. PAXSON: The witness is in charge of operations and he has testified about his operating conditions.

I asked a simple question, but he objects to it.

EXAMINER SPENCER: The witness may answer.

THE WITNESS: Suppose I give you the answer with respect to any load we have had on the substation up to the present time.

BY MR. PAXSON:

Q. All right. That is satisfactory.

A. I would say that we can carry the Mechanic Street load on the four lines from Metuchen.

Q. Of course, that includes anything taken off to Staten Island?

A. That is correct.

Q. Actually you can carry twice that load, can't you, from Metuchen on these circuits leading from Metuchen?

A. I would not doubt it.

Q. Then you do not need any help from Jersey Central Power and Light Company at any time to carry any part of your load?

MR. McALLISTER: That is not the force of the answer by the witness in any manner, shape or form. He has merely inquired up to this time as to the capacity of the lines between Metuchen and Mechanic Street, without any reference whatever to the source from which the energy will come. Now, there is injected "therefore, you can carry the load without drawing on Jersey Central Power and Light Company". That does not follow in any sense of the word.

MR. PAXSON: This is cross-examination. I can put leading questions.

EXAMINER SPENCER: You may answer the question.

THE WITNESS: I will say this, that we can carry the load at Mechanic Street substation without the Jersey Central Power and Light Company ties. Naturally our system is designed so that we can carry our load at our substations without these interconnections which we have.

MR. PAXSON: That is all.

EXAMINER SPENCER: Does that complete the examination of the witness?

MR. McALLISTER: That is all, Mr. Bass.

EXAMINER SPENCER: You may be excused, Mr. Bass.

(Witness excused.)

EXAMINER SPENCER: Now, Mr. Sibley, will you take the stand, please?

EDGAR DOW SIBLEY

resumed the witness stand and, having been previously sworn, testified as follows:

Cross Examination (Resumed)

BY MR. McALLISTER:

Q. Mr. Sibley, what variation in speed of generation at Livingston plant will be necessary before the governor will react?

A. I don't know.

Q. Do you know what load would be required on the system of the Staten Island Edison Corporation to affect the governor on any of the generators in that plant?

A. I do not.

Q. Do you have any information or knowledge as to the change in speed which will normally affect the governors?

A. No, sir.

Q. What variation in load expressed or stated in kilowatts would be required to affect the governor on a generator?

MR. PAXSON: Just a moment, please. I do not believe Mr. Sibley has qualified as a mechanical engineer, but he has as an electrical engineer.

MR. McALLISTER: I am asking him if he knows.

EXAMINER SPENCER: You may ask him if he knows.

THE WITNESS: I believe there will have to be another condition entering into that question.

BY MR. McALLISTER:

Q. Well, on a percentage basis. I will state it in this way, Mr. Sibley: Let's assume a 15,000 rated k. w. generator is in normal operation carrying a load of 10,000 k. w.; what load would be required, if you know, in addition to the 10,000 before that governor would react or respond?

A. I don't know. I would say that that is a matter of the individual unit or the individual governor.

Q. Of the individual governor?

A. Yes.

Q. Within what range are governors adjusted, if you know?

A. I don't know.

Q. You have no opinion on that at all?

A. I have not.

Q. Then your opinion this morning that the governors would not react under certain conditions was not based upon any very substantial information or knowledge?

A. No; that is not true. I have spent during my life many hours on the switchboard in Central stations. In these stations there are several units connected to a common bus.

Q. When you say units do you mean generating units?

A. Turbo alternators. When the load comes on to that station, as it would in the case of an elevated railroad load, if you please, some of those turbines respond to a greater extent than the others do to assist in carrying that load.

Q. But they all respond?

A. As a usual thing I imagine they would all respond to a sufficiently large load.

Q. The force of that answer is, Mr. Sibley, that you can adjust the generators so that certain generators will pick up a larger portion of the load as it comes on it? Is that what you mean?

A. Well, that would be inherent in the governor.

Q. Inherent in the governor or inherent in the adjustment of the governor?

A. Yes; it would be in the rig of the governor, the lever arms and the governor mechanism.

Q. Do you know with that range what load would be required to affect the governors?

A. I think that would vary with the individual units.

Q. I am asking you if you know within what range the governors would respond to load. Take a small load. The generators on the line are producing 10,000 k. w.; 1,000 more comes on the line. The generators must pick that up, must they not?

A. I assume you are speaking of an isolated case where one generator is supplying a community?

Q. I am just speaking of the problem I have just given you, Mr. Sibley; and that is one line, as I said, with 10,000. But let's divide it up into four or five units.

A. And that is all the supply that this line has?

Q. That is right.

A. Now, the question is what?

Q. Whatever load comes on must be handled and supplied by those generators on the line?

A. Absolutely.

Q. And if it is only 100 k. w., they must carry it?

A. That is correct.

Q. To the extent that the load tends to slow down the generators the governors must react to respond? Isn't that true?

A. That is true.

Q. And it is that quantity which you say you know nothing about, as to the quantity of energy that would be required to alter the supply of a generator which, in turn, would require that the governor react?

A. That is correct.

Q. Looking at your chart which is exhibit No. 8, Mr. Sibley, at about 2:22 a. m., there is a line indicating a marked increase in the flow of electric energy from Public Service Electric and Gas Company to Jersey Central Power and Light Company.

Pardon me. It is from Jersey Central Power and Light Company to Public Service Electric and Gas Company? Isn't that true, Mr. Sibley? That is at 2:22 a. m. Look at the lower one, the blue one.

A. This is from Jersey Central?

Q. In the first part of the question I reversed myself because I read the notation under the chart.

A. I see.

EXAMINER SPENCER: Will you read the question, please, Mr. Reporter?

(The following was then read by the Reporter:)

"Q. Looking at your chart, which is exhibit No. 8, Mr. Sibley, at about 2:22 a. m., there is a line indicating a marked increase in the flow of electric energy from Jersey Central Power and Light Company to Public Service Electrical and Gas Company."

THE WITNESS: Yes; there is a mark on the chart.

BY MR. McALLISTER:

Q. What does that mean?

A. It means that momentarily or for the width of this line that the electrical energy in the tie-line between Jersey Central Power and Light Company and Public Service Electric and Gas Company had in it approximately 10,500 kilowatts for a duration perhaps of a quarter of a minute.

Q. Above on the red chart for the same period, about 2:22 a. m., isn't there a marked increase in the flow of energy from Public Service Electric and Gas Company to Staten Island Edison Corporation?

A. Not at 2:22 a. m.

Q. What is that reading there? What time did you read the one above?

A. Well, possibly I mistook the lower line.

Q. I was referring to the first one, 2:22 a. m.

A. There is one a little later.

Q. There is one a little later, about 2:24?

A. Yes.

Q. Which really corresponds with the one before. Isn't that true?

A. I got over into the wrong space. It is a little nearer to 2:25 than it is to 2:22. Instead of calling that line 2:22 I would probably have called that line 2:23. And that would modify or take off a slight amount of kilowatts. It would be 10,000.

Now, I will come up on that other line.

MR. PAXSON: Just a minute, Mr. Sibley. As we read the chart there is no line that takes off 10,000.

BY MR. McALLISTER:

Q. It is 7,500, isn't it?

A. Yes; it is 7,500.

Q. It is three blocks, instead of four.

A. From the chart above there is an indication that for the duration of something less than a minute there was a draft of power from the Public Service Electric and Gas Company system to the Staten Island Edison Corporation. I believe both of these marks on the chart were due to the cable failure of the Staten Island Edison Company.

Q. By cable failure you mean other than the tie between Mechanic Street and Atlantic substations?

A. That is right. There was no doubt a surge on the Staten Island Edison Company's system.

Q. And that correspondingly is reflected on the draw upon the flow of energy from Jersey Central Power and

Light Company to Public Service Electric and Gas Company, as shown by the indication on the blue chart?

A. Yes; that is correct.

Q. If we come over to 3:00 o'clock in the morning, between 3:10 and 3:15 there is a demand on Mechanic Street substation so far as Staten Island Edison Corporation is concerned of approximately 9,600 kilowatts. Isn't that true?

A. That is correct.

Q. At that particular time there was a flow of energy from Jersey Central Power and Light Company to Public Service Electric and Gas Company of about somewhere between 7,000 and 7,500 kilowatts?

A. Well, I don't think that is quite a true statement. This little peak or indenture there is about two minutes wide. If you start with the first part and the charts are absolutely synchronized, which I tried to do, at the beginning of that peak—

Q. That is, the beginning of the peak to Staten Island, you mean?

A. Yes; the beginning of the peak to Staten Island. It is between 6,500 and 7,000. Then it drops down to about 3,500. Then at the time the peak is ended it is back up to about 7,000.

Q. As a matter of fact, if you lay a rule on that, Mr. Sibley, will you not find that at the time of the beginning of the highest part of the peak the supply of energy from Jersey Central Power and Light Company to Public Service Electric and Gas Company was near the valley of the line as you show it there?

A. I do not have a rule but I have a piece of paper here from which I will try to state that. The graph of the power from the Public Service Electric and Gas Company to Staten Island Edison Corporation is more or less steady, and during that time the line fluctuates from the Jersey Central Power and Light Company to the

Public Service Electric and Gas Company; so you will have to be explicit on a certain time.

Q. During all of the time that is shown by the horizontal line at the very apex of the picture indicating the flow of energy from Public Service Electric and Gas Company to Staten Island Edison Corporation?

A. Yes.

Q. Referring to that, which is about, as I read it, 2:12 or 3:12. Isn't that about where you read the beginning of that?

A. Yes; I would say that that is correct.

Q. At that same corresponding time what was the flow from Jersey Central Power and Light Company to Public Service Electric and Gas Company?

A. Between 6500 and 7000 kilowatts.

Q. That energy being delivered to Public Service Electric and Gas Company which originated with Jersey Central Power and Light Company flowed into Mechanic Street substation?

A. Yes; that is correct.

Q. The load on Mechanic Street substation would be the 9600 kilowatts flowing to Staten Island Edison Corporation plus the local load, whatever that might be? Isn't that true?

A. Including the General Cable.

Q. Including the General Cable?

A. And the local load.

Q. And the local load?

A. And this Staten Island Edison Corporation load. Those three added together.

Q. Let us say it would be something in excess of 10,000 kilowatts.

A. All right, sir.

Q. The amount flowing to Staten Island is 9600. It would certainly be reasonable to add on at least 400 more for the local load, wouldn't it?

A. Well, I do not have these figures of the local load, but they were submitted on 24 steps there. You can refer to that and get an average figure.

Q. I am willing to have you take any figure you want to mention there for the purpose of this question, even adding on 400. There would be no question of 400 being less than the actual load, in addition to the energy flowing to Staten Island Edison Corporation?

MR. PAXSON: That is objected to. Mr. Sibley said he didn't know the load.

BY MR. McALLISTER:

Q. Does this furnish you any information or give you any indication as to the load, Mr. Sibley (indicating)?

MR. PAXSON: What is that document that you are offering him, Mr. McAllister?

MR. McALLISTER: It is exhibit No. 16.

THE WITNESS: I don't see any three o'clock readings on that sheet.

MR. McALLISTER: This is exhibit No. 12, Mr. Paxson (indicating).

THE WITNESS: On this exhibit 12, on July 19th at three o'clock a. m., this exhibit shows—

MR. PAXSON: Just a second please. This exhibit shows loads for 1937, and the exhibit he is comparing is for 1936.

THE WITNESS: Yes; that is true, of course. I imagine this was a hypothetical question, anyway.

BY MR. McALLISTER:

Q. That is true. I was merely asking you to assume that that load would be at least 400 kilowatts. For the purpose of my question I was going to use the assumption that there was 10,000 kilowatts required at Mechanic Street

substation to supply the load, which I think would be a reasonable assumption, Mr. Sibley.

A. Well, a year ago this local load is over 2,000 kilowatts at three o'clock in the morning.

Q. So we would not be indulging in a violent assumption if on this date we said it was 400, would we?

A. Well, there is a good deal of difference between 400 and 2,000.

Q. Let's get at it in another way. I am just trying to get a basis upon which to put a question, Mr. Sibley. Let us assume the load going to Staten Island Edison Corporation was the only load on Mechanic Street. That is 9600 kilowatts, isn't it?

A. Yes; that is correct. That is from 3:12 to 3:14.

Q. That is right. Now, we do know that there is some other load there in addition to that at Mechanic Street substation. Isn't that true?

A. I assume that is true.

Q. Now, Mr. Sibley, if, as you state, 6500 kilowatts of the 9,600 kilowatts on the bus at Mechanic Street substation was received from Jersey Central Power and Light Company, then the balance required to meet the load going to Staten Island Edison Corporation would be coming in from Metuchen? Isn't that true?

A. Well, under the assumptions we have made, that is true.

Q. And all of that energy, both the quantity coming from the Jersey Central Power and Light Company to Mechanic Street substation and the quantity coming in from Metuchen would combine to supply the load required to serve the demand of Staten Island Edison Corporation? Isn't that true, Mr. Sibley?

A. I believe that is a true statement.

Q. In other words, no part of the energy from Jersey Central Power and Light Company received on the bus at Mechanic Street substation could flow to Metuchen at

a time when the energy from Metuchen was flowing into Mechanic Street substation? Isn't that true?

A. Will you please repeat the question?

EXAMINER SPENCER: Will the Reporter read the question, please?

(The question was then read by the Reporter.)

THE WITNESS: The power delivered to Staten Island Edison Corporation from the Public Service Electric and Gas Company under the assumptions just described would indicate that the power on this bus was obtained jointly from the Jersey Central Power and Light Company and over cables between Metuchen and Mechanic Street. I believe the power thus transported to Staten Island Edison Corporation was a mixture of these kilowatt hours.

BY MR. PAXSON:

Q. You mean "would be" and not "was", since it was a hypothetical case?

A. Under the assumptions.

BY MR. McALLISTER:

Q. That would be the situation during either of these two major demands as shown on your exhibit No. 8, would it not, Mr. Sibley?

MR. PAXSON: That is objected to upon the ground that it would not be the situation. There is nothing on this graph that shows the local load.

EXAMINER SPENCER: The objection is overruled. You may proceed to answer, Mr. Sibley.

THE WITNESS: That was true for the assumptions stated by Mr. McAllister.

BY MR. McALLISTER:

Q. With respect to these two major emergencies that are shown from 2:30 up to and approaching the hour of

3:00 a. m., and then from approximately 3:10 until 4:10. No I mean 3:30. Let's take it there. You would have this situation, wouldn't you? You have the demand requirements of Staten Island Edison Corporation; and they are shown in orange on your chart during those periods. Is that not correct, Mr. Sibley?

A. That is correct.

Q. For the same period in blue you show the energy which was coming to the Mechanic Street Substation from the Jersey Central Power and Light Company.

A. That is right.

Q. And during those periods the quantity of energy required to supply the load at Mechanic Street would be that amount which would equal the sum of the energy going to Staten Island Edison Corporation and the local load, including the load to General Cable. That would be the load on the bus at Mechanic Street substation?

A. That is true, I believe.

Q. Now, that total load would be greater, would it not, than the amount being received from the Jersey Central Power and Light Company during that time? Will you please look at your chart?

A. From what time, please?

Q. Begin at 2:35, until about 2:52 or 2:53, just before that straight line at the bottom of the orange. Do you see that?

MR. PAXSON: Did you say 2:35 or 3:35, Mr. McAllister?

MR. McALLISTER: I said 2:35.

THE WITNESS: All right. Now, I have that. Now, what is the local load assumed to be in this case?

BY MR. McALLISTER:

Q. It would be some amount of energy, but I haven't any particular reason for wanting to make it any amount.

You may make your own determination or assumption based upon your knowledge of that operation.

A. I don't know what it is, so I will take any figure you want to put down.

Q. 2,000 to 4,000. 2,000 is all right. I think that is reasonable.

A. Is there a question that I ought to answer?

Q. Yes; if you please. I thought you were figuring, so I was giving you time to do it.

A. This period, as I remember it, was from 2:35 to 2:52. Now, during that time the requirements to Staten Island fluctuated. Most of the time it was up around 8,400. Then it left it and dribbled off until 2:52, as I read the chart, it is under 3,000.

Q. 2:52 is the maximum down at the bottom there, as I read it.

A. All right then, 1,000.

Q. Perhaps I cannot read the chart. That may be the whole trouble. I am talking about this part right here (indicating), from 35 here over to that point there (indicating).

A. Here is 35, 35, 40. Well, it is about 47.

Q. What did I say?

A. You said 52.

Q. Make it 47.

EXAMINER SPENCER: Now, Mr. McAllister, ask your question with the figure you have in mind, so that the record will show it.

BY MR. McALLISTER:

Q. For the period from 2:32 a. m. to 2:47 a. m. the load at the Mechanic Street Substation would be some amount in excess of the 8,400 which at that time was flowing from Mechanic Street station to Staten Island?

A. That is correct.

Q. If, during that same time as shown by the chart

the average energy flowing from Jersey Central Power and Light Company to Public Service Electric and Gas Company was approximately 7,500 kilowatts on the average, then the difference between the energy on the bus at Mechanic Street which came from the Jersey Central Power and Light Company and the amount required to supply the demands of Staten Island Edison Corporation, plus whatever amount would represent the local load, that total, or the difference between 7,500 and 8,400, which would be approximately 900 kilowatts, plus the local load, whatever that would be, would of necessity flow from Metuchen over the available circuits? Isn't that true?

A. That is true.

Q. Therefore, the entire quantity of energy coming from Jersey Central Power and Light Company to the Mechanic Street bus would be utilized in supplying the load to Staten Island Edison Corporation, less whatever proportion might be utilized in supplying the local load. You would have the two quantities coming on to the bus from the Jersey Central Power and Light Company and Metuchen and then dividing to supply the load to go across to Staten Island Edison Corporation?

A. These two sources of power would jointly supply that bus at this particular time and under these particular conditions that you mentioned, and the energy, under this assumption, would probably be—if we could ear-mark kilowatt hours—a mixture of the two.

Q. That would flow from Mechanic Street to Staten Island? Your answer is "yes"?

A. Yes, sir.

EXAMINER SPENCER: Have you any other questions, Mr. McAllister?

MR. McALLISTER: I will have a few more questions, but I was just trying to make certain so as to eliminate any questions that I might be able to eliminate.

Well, Mr. Examiner, those are all of the questions that I have to ask.

EXAMINER SPENCER: You may examine the witness on redirect, Mr. Paxson.

MR. PAXSON: May we have a short recess at this time?

EXAMINER SPENCER: For how long?

MR. PAXSON: For five or ten minutes.

EXAMINER SPENCER: We will recess at this time, gentlemen, for ten minutes.

(Whereupon, a short recess was taken, after which the following occurred:)

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

MR. PAXSON: If the Commission please, the Examiner will recall that yesterday Mr. McAllister, on page 750 of the record, and continuing over on page 751, asked the witness Sibley to read from his chart, exhibit No. 6, the kilowatt hours represented thereby for the month of July.

Last evening he checked over the transcript of testimony and found that the figures which are inserted therein are not what Mr. Sibley testified to. Both one of our engineers who sat at the table here and one of theirs took down the figures as they came from Mr. Sibley's mouth. I understand one of the engineers for the Commission did also. They have had a conference, and I understand that now we are all agreed that the figures as we both took them down are correct and should be inserted in the record in lieu of the transcript.

MR. McALLISTER: That is correct, Mr. Examiner. They are determined to be accurate figures.

EXAMINER SPENCER: Then, have the corrected figures read into the record. Let the record show that an error occurred in some way in this testimony and that Counsel for the Commission and Counsel for Respondent have agreed upon a corrected statement. Then, someone may read it.

MR. A. E. BURNS: Mr. Sibley's testimony on the flow to Staten Island Edison Corporation is as follows. And these are in thousands:

8,000, 9,000, 9,000, 8,000, 8,000, 8,000, 11,000,
9,000, 12,000, 8,000, 11,000, 12,000, 14,000, 7,000,
8,000, 11,000, 9,000, 6,000, 8,000, 8,000, 8,000,
10,000, 8,000, 5,000, 7,000, 14,000, 9,000, 8,000.
8,000, 7,000, and 8,000.

MR. PAXSON: That is to the Staten Island Edison Corporation.

MR. BURNS: Yes; that is to the Staten Island Edison Corporation.

The ones I am now going to read are to Public Service Electric and Gas Company. And these are all in thousands:

9,000, 8,000, 8,000, 8,000, 8,000, 8,000, 7,000,
8,000, 9,000, 9,000, 6,000, 5,000, 6,000, 11,000,
12,000, 8,000, 7,000, 10,000, 10,000, 11,000, 8,000,
9,000, 10,000, 10,000, 8,000, 6,000, 12,000, 11,000,
9,000, 11,000, and 7,000.

EXAMINER SPENCER: Do those figures correspond and check?

MR. McALLISTER: Those check with what we have now, Mr. Examiner.

EXAMINER SPENCER: You may proceed, Mr. Paxson.

Redirect Examination

BY MR. PAXSON:

Q. Mr. Sibley, at page 696 of the record, beginning at the bottom of page 695 and continuing over on the first line of page 696, you stated or, rather, the transcript reads:

"In fact, I believe the energy purchased during this emergency was approximately 40 per cent of all emergency power furnished by the Staten Island Edison Corporation."

I show you this transcript so that you can see what I am referring to, Mr. Sibley, and ask you if that word "by" is what you meant, or did you mean something else, or did you say something else?

A. That "by" should be "to".

Q. Now, Mr. Sibley, various questions were asked you yesterday with respect to exhibit No. 6 and a comparison made therewith with figures which appear on exhibit No. 9, introduced through Witness Bass, showing or purporting to show the amount of energy transferred from Staten Island Edison Corporation or to Staten Island Edison Corporation. Has exhibit No. 19, which is a Commission's exhibit, ever been checked for accuracy by you?

A. I do not have that exhibit, Mr. Paxson.

Q. You gave a lot of testimony with respect to it. Was that testimony all based upon the assumption that those figures were correct, or did you have knowledge that they are correct?

A. I believe I stated that I thought they were correct.

Q. Did you say you thought they were correct or you assumed they were correct?

A. I did not check these ratings, if that is what you mean.

Q. You say you did not?

A. No, sir, I did not check them.

Q. That is all I am asking you. You just assumed them to be correct in your answers?

A. They looked all right.

Q. Now, with respect to exhibit No. 6 you were asked a question as to whether the figures which appeared on exhibit No. 19, assuming them to be correct, were more reliable and accurate than this graph which was introduced in evidence by you. Just for the purpose of clarity tell us just what is the purpose of this graph.

A. I attempted to show graphically that the ebb and flow of power from the Public Service Electric and Gas Company to Staten Island Edison Company balances out approximately each day, month, and year.

Q. I don't want to go all over that again. I think it has been gone over in direct and by cross examination. If Mr. McAllister will pardon for a leading question, would you say that the purpose of this graph was to visualize in general what is shown in details by figures?

A. That is what I attempted to do; yes, sir.

Q. That is all I wanted to bring out. It is probably there already and in better language.

Now, Mr. Sibley, you were testifying this morning as to the occasions on which you were in the Mechanic Street Substation of the Public Service Electric and Gas Company at Perth Amboy. I recall you stated you first went there on September 12th, and then I think you said you were there on the 13th.

How many times were you there?

A. Well, on the 12th of September, 1938, I arrived at South Amboy in time for lunch. In the afternoon I went over to the office of the superintendent and over into the substation.

On the 13th I spent all day copying records in the office of Mr. Chamberlain there.

On the 15th I went to South Amboy power station with an associate and spent the day there copying records.

The 16th I was there until around one o'clock.

On Monday, the 19th, I was in Perth Amboy in the office there of Mr. Chamberlain.

Then on Saturday, October 1st, I was in the office of Mr. Chamberlain obtaining some records and also visited the Mechanic Street Substation.

Q. On your visits to this Mechanic Street Substation were you alone or did you take some assistants?

A. On October 1st I went in accompanied by Mr. Hooven of Public Service Electric and Gas Company, and on September 12th I was again accompanied by Mr. Hooven and one of my associates, Harry Rankin.

Q. Did Mr. Rankin assist you in your work and aid you in the compilation of these exhibits and the gathering of information from the records?

A. Yes, I read the figures and Mr. Rankin entered them on cross section paper.

Q. Mr. Rankin was working under your direction?

A. In this particular case.

Q. Now, Mr. Sibley, referring again to Exhibit No. 8, which is this chart which you have been testifying about today, is there anything on this chart which will enable you to ascertain what the load is on Mechanic Street Substation?

A. Only the portion of the energy being delivered from the Public Service Electric and Gas Company to Staten Island Edison Company. Maybe I didn't state that clearly. The entire load that was delivered to Staten Island Edison Corporation.

Q. But no other load?

A. Oh, I didn't include on here the local load or the load in the General Cable factory.

Q. Now, Mr. Sibley, on page 728 of the record appears a question:

> "That is true, but nevertheless, in the consideration of the practical problem whether or not energy from a common point will flow out over available cir-

cuits does not require this complicated computation that you have referred to for the solution of that problem, does it?"

And then you answered, your answer here appears to be:

"Well, we will so consider it. As far as the direction of the flow is given in one of your exhibits, I have no quarrel about the computation of the Commission's engineers in it."

Now I ask you in making that answer did you have in mind the question of computation by the engineers or were you considering any question about direction of flow?

A. I believe that testimony was subsequent to some controversy about the flow of power through parallel paths. I don't have the record here.

Q. Do you want to see the record?

A. Am I correct in that? Then, maybe I can tell you what I meant to say.

Q. I will have to give you the record to refresh your mind.

A. Well, what I had in mind there on the previous page I was being questioned about the flow of energy in parallel paths and the proportion in each and the amperes and so on, and I would say in the 9th line down what I had in mind there was the division of the flow or the proportion in these parallel circuits.

Q. Well, these exhibits that you referred to were based on certain figures, and when you referred to the computations you were assuming them to be correct. You meant you had no quarrel with the computation, is that right?

A. The work that I did here on the stand, the calculation that I made here?

Q. No, I am not referring to that at all. I am just

referring to your statement which has to do with the computations.

MR. McALLISTER: I think the witness has made his position perfectly clear, Mr. Examiner. I don't have any idea what Mr. Paxson is trying to get him to say, but he has answered the question as it has been put.

EXAMINER SPENCER: I understood the witness did not say which computation he referred to, and I would like to know myself. I do not know what is in that 9th line. I would like to have the witness read that. What is the question?

THE WITNESS: Well, the question is, "That is true, but nevertheless, in the consideration of the practical problem whether or not energy from a common point will flow out over available circuits does not require this complicated computation that you have referred to for the solution of that problem, does it?"

BY EXAMINER SPENCER:

Q. Now what is the computation you referred to?

A. The computation that Mr. McAllister referred to was, I had talked about, the previous answer: "Well, of course amperes is not a sole function of energy. You must enter into that equation, the angle of lag and lead."

And, in order not to gum this proceeding up more than necessary, I made the statement that as far as the division, the proportion of the energy in these circuits, the way it divided, that I was willing to accept, I stated as far as the division of the flow is given in one of your exhibits, I have no quarrel about the computation of the Commission's engineers in it. I had reference to an exhibit there that had a lot of arrows on it, and had a lot of amperes and tables and one thing and another. I didn't

think it was important in this case. I was willing rather than fuss with it, I was willing to let it go as being correct.

BY MR. PAXSON:

Q. But these computations are based on certain readings contained in certain exhibits which were introduced. You did not mean thereby to state you accepted the readings as correct, did you?

A. No, the only thing I was willing to accept, as I stated, the proportion of amperes in these four parallel circuits, the relation of power in each one of these four circuits, I didn't consider it was material and I didn't want to go through a lot of complicated calculations.

MR. PAXSON: That is all.

EXAMINER SPENCER: Does that conclude your redirect?

MR. PAXSON: That is all.

EXAMINER SPENCER: Do you wish to ask any questions, Mr. McAllister?

MR. McALLISTER: Just one moment, please. (After a pause:) I have no further questions, Mr. Examiner.

EXAMINER SPENCER: You may be excused, Mr. Sibley.

(Witness excused.)

EXAMINER SPENCER: Call your next witness, Mr. Paxson.

MR. PAXSON: If the Commission please, I have no further witnesses.

EXAMINER SPENCER: Do you have any further evidence, Mr. McAllister?

MR. McALLISTER: What are you going to do about your dial, Mr. Paxson?

MR. PAXSON: I have already offered and received permission to substitute therefor a photostatic copy, which I expect to do.

MR. McALLISTER: I think there was a subsequent ruling.

MR. PAXSON: I don't think there was a subsequent ruling. The Examiner did say at the beginning of the hearing yesterday morning he wanted to consider the form of certification of the photostatic copy.

EXAMINER SPENCER: Do you want to be heard on that, Mr. McAllister?

MR. PAXSON: I think the dial has been entirely substantiated by the testimony offered through the Commission by Mr. Bass.

EXAMINER SPENCER: I was going to say the Commission's counsel has used it. I would assume he would want it in evidence, or is that wrong?

MR. McALLISTER: No, that is not wrong. I just want to clear it up, how it is going to be put in. I wasn't raising any question about it.

EXAMINER SPENCER: The ruling on this question is temporarily deferred.

Are there any other witnesses, Mr. McAllister?

MR. McALLISTER: Yes, I have, Mr. Examiner. I have just said to Mr. Paxson we can't reasonably assemble the material we want to put in on rebuttal and to proceed now will put in matters that we could, if given second thought, we would probably leave out and probably will, but Mr. Paxson says how about dis-

posing of this question which you have reserved for ruling with respect to the application of the New Jersey Power & Light Company pending before the Securities and Exchange Commission. We must dispose of that, and that much progress could be made and we could recess until tomorrow morning, if that is agreeable.

EXAMINER SPENCER: All right, we will dispose of that.

MR. PAXSON: I would like to make a further statement on that. You gave this morning and last night to prepare ourselves to do so, and while I think I have made a rather complete statement, I would appreciate the opportunity of making further comment.

EXAMINER SPENCER: I will hear from you, Mr. McAllister.

MR. McALLISTER: Do you desire to hear from me first?

EXAMINER SPENCER: Yes. I do not wish to get too much in the record, but only to show how it is involved in this case.

MR. McALLISTER: Mr. Examiner, the application filed with the Securities and Exchange Commission relates to the acquisition of New Jersey Power & Light Company of some 12,000 shares of Jersey Central stock. That number of shares, I think, represents approximately 67 per cent plus.

EXAMINER SPENCER: Are those shares the ones that have already been acquired?

MR. McALLISTER: No, I will cover that if you will give me an opportunity, Mr. Examiner.

EXAMINER SPENCER: All right, proceed.

MR. McALLISTER: New Jersey Power & Light Company is seeking authority to acquire 712,411 shares of stock of Jersey Central.

In this proceeding we have under consideration the acquisition of certain shares of stock by New Jersey Power & Light Company, that is shares of stock of Jersey Central Power & Light Company by New Jersey Power & Light Company, the number as I recall it is 411,350 or 412,350.

MR. PAXSON: You mean the ones that are now the subject of this issue?

MR. McALLISTER: Yes.

MR. PAXSON: 341,350.

MR. McALLISTER: 341,350?

MR. PAXSON: Yes.

MR. McALLISTER: That 341,350 represents 32 per cent of the total outstanding capital stock of the Jersey Central Power & Light Company, 32 per cent plus. So, that the number of shares involved in this proceeding plus the number of shares involved in the proceeding before the Securities and Exchange Commission represents 100 per cent of the capital stock of the Jersey Central Power & Light Company. Now there may be a few shares, qualifying shares, they have mentioned nine shares that are directors' qualifying shares. I haven't attempted to add up those figures, but it makes no difference, it is so near 100 per cent, it can not be disputed.

EXAMINER SPENCER: That is all right.

MR. McALLISTER: In the application before the Securities and Exchange Commission the New Jersey Power & Light Company made certain state-

ments under oath, one of them is that they have acquired this capital stock with which this proceeding is concerned. They related there the circumstances under which it was purchased. They relate the circumstances which induced the purchase because, I presume, the reasons given for wanting to purchase two-thirds is about the best indication that you can get of their reasons for wanting to purchase one-third.

Then, speaking of the physical properties, they describe those and state under oath in the application that a certain map, Exhibit H, was filed as a part of the application, showing the area served by the various companies, New Jersey Power & Light Company and Jersey Central Power & Light Company. Also Staten Island Edison Corporation, and shows their principal transmission lines.

I didn't know at the beginning of this proceeding there was a question about that and I don't know that there is now except that it has been indicated there was a question whether or not these circuits on Staten Island are transmission lines or not. In this statement the statement is very clearly made that they are transmission lines.

I have read all of the application which contains many statements which relate to the facts which are important in connection with the consideration of the matters that are before the Federal Power Commission. It is a sworn statement of New Jersey Power & Light Company, respondent in this proceeding. The statements therein made should, in my opinion, be accepted as admissions on the part of New Jersey Power & Light Company.

The part which I have asked be incorporated in the record in this case is not voluminous because I have said that I was not interested and did not ask that that part of the application which set forth and

contained the indentures, articles of incorporation and the like be included. In fact I said I would prefer to have it excluded.

Furthermore, early in the proceeding I did discuss the matter with Mr. Paxson and told him that before the end of the proceeding I intended to offer it by reference in the record. In fact I asked him if he had a copy of it, that I would very much appreciate receiving it, but I didn't have any occasion to discuss it further with Mr. Paxson. However, I know how valuable these documents are, and when I say valuable, it is an expensive proposition and the company doesn't ever print more than their requirements and when I made the request of Mr. Paxson I didn't feel at all certain he had an extra copy. I was asking for it merely if it could be made available. I am not bound by that.

So, with all other things taken into consideration, it seems to me an application which should be admitted, particularly under the circumstances when it relates to the acquisition of the balance of the very stock we have under consideration and must necessarily contain facts that are pertinent to the issues which we have before us.

Now those issues are not confined just solely and only to the question of whether or not one company or another is a public utility within the meaning of the Act. It covers the sphere of the acquisition of this stock and there are other matters than just that utility status involved, particularly the facts relating to the acquisition they are setting forth in that application on file with the Securities and Exchange Commission, and I am certain that the information contained therein will be valuable and helpful to the Commission. It certainly will be valuable and helpful to

me in knowing what the real facts are regarding some parts of this transaction.

EXAMINER SPENCER: Now, did I understand you to say that they do refer to this stock they have already acquired in this application?

MR. McALLISTER: Oh, yes, they do.

EXAMINER SPENCER: Mr. Paxson, what do you have to say?

MR. PAXSON: Mr. Examiner, I can't state whether they do or not, because I am not acquainted with the application, don't know anything about it, except as I stated yesterday that I know the application has been filed.

Now, Mr. McAllister states that certain statements are contained therein which set forth facts and circumstances under which this 341,350 shares were acquired. If that is true and it is pertinent, then he should offer those particular portions. On the other hand, I contend and now deny the jurisdiction of this Commission to investigate or to go into at this time anything relating to the circumstances under which that stock was acquired. This Commission has now the direct issue before it as to the public utility status of Jersey Central Power & Light Company. This is not an application for any approval of the acquisition of those shares. If and when it, is determined this Commission has jurisdiction, then it may properly go into those facts and circumstances and conditions, but there is a preceding question which must be determined, and that is purely the question of the jurisdiction of this Commission over Jersey Central Power & Light Company. If it has no jurisdiction, then the acquisition was legal and it is of no consequence to this Com-

mission what those facts, circumstances and conditions are.

I am not down here today to combat, approve or establish what those facts, circumstances or conditions are, because I question the jurisdiction of this Commission at this time to go into that inquiry.

Now then, I want it understood distinctly, and I know it is, that I am making objections not only on behalf of New Jersey Power & Light Company, but also on behalf of Jersey Central Power & Light Company.

Now Jersey Central, as Judge Autenrieth stated yesterday, is not a party in any way, shape or form to this application which is now proposed to be introduced as testimony. Mr. McAllister stated yesterday Jersey Central Power & Light Company came in as an intervenor. He argued they had no standing apart from the proceeding instituted, they had no individual rights apart from the rights of the others, they had no issues separate and distinct from the respondent. I am reading practically from the record of your argument so the Examiner will have it before him.

Now my answer to that in behalf of Jersey Central Power & Light Company is simply this, the Jersey Central Power & Light Company came into this proceeding because this Commission served it with notice of this proceeding, stated it was about to enter an investigation to determine the status of the Jersey Central Power & Light Company. This is the primary question, the status of the Jersey Central Power & Light Company on March 14, 1938.

If Jersey Central Power & Light Company had not come in, had not attended, had not intervened, and the status of a public utility had been fixed on them, in view of the fact this Commission served notice on them, they might have been estopped to deny

it. Now, they are in and have been admitted by ruling of this Commission to be in.

Now to admit any statement made ex parte by New Jersey Power & Light Company in a different proceeding arising subsequent to the issues here defined is proof of no material fact which might have a bearing in determining the status of Jersey Central Power & Light Company is manifestly improper. Such statements are not proper evidence and are pure hearsay. Jersey Central Power & Light Company is in no way a party and can not possibly be bound thereby.

On the other hand, if the statements are not material, then certainly this large record should not be admitted. If Jersey Central Power & Light Company is not bound by this record, and I think I can state without any possibility of contradiction, if it is admitted, and if it ever goes to court, it will be thrown out. If Mr. McAllister wants to bring about that condition, he will accomplish nothing, for Jersey Central Power & Light Company is not bound. If Jersey Central Power & Light Company is not bound, then New Jersey Power & Light Company is not bound because the sole purpose in this proceeding is to determine the status of Jersey Central Power & Light Company on March 14, 1938, and it would be an absurdity to say that Jersey Central Power & Light Company was not actually a utility since it could not be bound by any of that testimony and then at the same time say it was a public utility so far as New Jersey Power & Light Company is concerned. The issue is one and the same at this time. It is purely jurisdictional, and moreover I wish to emphasize again this application before the SEC was filed in April, 1938, subsequent to March 14, 1938, and therefore can have no bearing whatsoever on whether Jersey Central Power & Light Com-

pany was a utility on that date. Moreover, and I think this is most important, this application to the SEC, on Mr. McAllister's own statement, is not concerned with securities the propriety of the acquisition of which without Federal Power Commission approval is at issue here. It is an application for approval of SEC for the acquisition of other and different shares which have not yet been acquired.

Now if Mr. McAllister insists on putting it in and tries to show that certain facts are correct, we have got to put in possible rebutting evidence on evidence explaining the statements. What kind of mess have we got? Is this Federal Power Commission going to try to insist upon them trying out the same issue? It is a total absurdity. Again it is a large mass of stuff I haven't seen and I could not accept as evidence. There might not be a word in it that is not true. I don't know. How can I be prepared to meet it. I can't possibly accept it. As I say, I have either got to let it go in or be prepared to rebut it. I am not prepared to rebut it. It is now a matter of allowing the whole thing which is absolutely incompetent, irrelevant and immaterial. To include it without showing the materiality is burdening the record down unduly and, as I stated before, it is going to cost us a lot of money and we object.

It is true Mr. McAllister stated a couple of days ago he intended to offer it and I advised him then I didn't think I would consent to it, I thought I would oppose it. He did ask if I had an extra copy and out of courtesy I would like to furnish him one. It is very expensive, but I had my associate, Mr. Weston, call up and they said they were shy themselves, and the only thing they had was the file copy which under all of their rules they don't dare let out. I have had no opportunity to see it. It is absurd right on its face.

As far as the question whether they are transmission lines or whether they are not, he says there are statements in there such lines were transmission lines. I don't question the statement. There probably is such a statement, but the purpose of introducing an application to the SEC for its approval for the acquisition of different shares, if they used the word transmission, engineers probably didn't prepare that and clerks did, and I would have to bring engineers to disprove it. That is not a material thing. I guess I have given you all of my objections.

EXAMINER SPENCER: Is it admitted by counsel that this application on file with the SEC is a public record?

MR. PAXSON: I don't even know that. I don't admit that.

EXAMINER SPENCER: Is it your understanding that it is?

MR. PAXSON: There has been no hearing on this. Maybe there has. Commission's counsel knows more about this than I do.

MR. McALLISTER: Mr. Examiner, an application filed with a duly constituted Federal Agency as required by law, when that statement is submitted under oath, particularly in connection with a part of the very same matter under consideration, the acquisition of common stock, the problem there is different.

EXAMINER SPENCER: That question would be determinable by the provisions of the law?

MR. McALLISTER: Absolutely, but I have two points I would like to mention to the Examiner, if I may. The first one, we tried out the question of jurisdiction in the Metropolitan Edison case and the Su-

preme Court of the United States said when this Commission undertook an investigation they were not to be limited by any objection to jurisdiction or otherwise.

MR. PAXSON: That Court didn't pass on your record. What a sad time you would have had if they did.

MR. McALLISTER: As far as this case is concerned we are in the same position.

MR. PAXSON: I want to make one other statement.

MR. McALLISTER: I want to finish.

MR. PAXSON: You certainly have the right to.

EXAMINER SPENCER: Proceed.

MR. McALLISTER: The other statement I wish to make is this, to repeat what I said yesterday when an intervenor comes in on a petition where he requests that he be permitted to appear and participate and protect his rights, the granting of that petition can not in any way limit the scope of the proceeding in which he seeks to intervene.

EXAMINER SPENCER: I don't think it limits the scope, but do you think he would be bound by what a third party would say?

MR. McALLISTER: If he comes in and submits.

EXAMINER SPENCER: I don't mean that.

MR. McALLISTER: There are two horns to that dilemma, Mr. Examiner, and I say under other circumstances he comes in here, he has a right to object and if as a matter of fact in this proceeding it was not

valid and admissible, not measured by what he thinks is his narrow interest in the proceeding, but measured by the scope of the proceeding in which he is intervening, and that is what determines the scope of the thing, and when he is in there and subject to jurisdiction and came in voluntarily, he is bound by it regardless of the application of the strict rules of law. In a proceeding in which he was the only party it might not be admissible.

EXAMINER SPENCER: You don't mean to say the rules of evidence in court do not apply in such cases when the admission of certain statements would apply against one party and not apply against another party? That is true even in criminal practice.

MR. McALLISTER: It all depends upon the question of how the party came into the proceeding. If you go into a civil court as an intervenor and submit yourself to the jurisdiction of the court you have some rights that are not measured exactly by the scope of the court's authority over the defendant, but generally speaking when you come in as an intervenor and submit to the jurisdiction of the court, you submit to the jurisdiction of the court for all purposes the law provides, and the jurisdiction of the court permits in so far as the original proceeding is concerned.

EXAMINER SPENCER: Do you wish to say something else, Mr. Paxson?

MR. PAXSON: You asked whether it was a public record. My answer is I don't know and still do not know. If it were a public record that is no reason for introducing it. We have thousands of public records on file. Are we going to bring them in because they are public records? Some materiality must be shown. The issues so far as New Jersey Power &

Light Company and Jersey Central Power & Light Company are concerned are plainly coincident. It is the status of a public utility—

EXAMINER SPENCER: (interposing) The Examiner appreciates what counsel for Commission and counsel for respondent said, and I will make my ruling on that tomorrow morning. In the meantime I want to ask counsel for respondent and counsel for the Commission to verify the photostatic copy of the plate which has been delivered up here and be prepared to say tomorrow morning whether they consider it a facsimile sufficient to be introduced.

MR. McALLISTER: I am perfectly willing to have it introduced now.

MR. PAXSON: All right, it is satisfactory to us.

EXAMINER SPENCER: Let the record show that photostatic copy of the plate heretofore identified as being the face of a type of ammeter similar to those used by the Public Service Electric and Gas Company is received as Respondent's Exhibit No. 9.

(The photostat referred to was marked Respondent's Exhibit No. 9 and received in evidence.)

EXAMINER SPENCER: We will recess until 10:30 o'clock tomorrow morning.

(Whereupon, at 4:50 o'clock p. m., an adjournment was taken until 10:30 o'clock a. m., Friday, October 7, 1938.

Washington, D. C.,
Friday, October 7, 1938.

The hearing in the above-entitled matter was resumed, pursuant to adjournment, in Room 1201, Hurley-Wright

Building, 1800 Pennsylvania Avenue, N. W., Washington, D. C., at 10:30 o'clock a. m.

Before:
Carroll B. Spencer, Trial Examiner

Appearances:
As heretofore noted.

PROCEEDINGS

EXAMINER SPENCER: The hearing will be resumed.

Gentlemen, upon the question of the admission of the application filed by the New Jersey Power & Light Company with the Securities and Exchange Commission,—

MR. PAXSON: (interposing) What is that?

EXAMINER SPENCER: I was saying that upon the question of the admission of the application filed by the New Jersey Power & Light Company with the Securities and Exchange Commission, the Examiner rules—

MR. PAXSON: (interposing) I was wondering if I could make a very short statement in addition to what I already said, which is new information I have obtained.

EXAMINER SPENCER: Yes.

MR. PAXSON: Mr. McAllister was arguing for the admission of this application. Of course I had no knowledge of its contents, never having seen it, and one of his arguments that it be admitted was it contains a statement of the facts, manner, circumstances, and conditions by which the stock now under consideration was acquired.

Since yesterday afternoon I was in touch with one of my associates in New York and he states there was not contained therein surrounding the facts, circumstances and conditions under which the stock was acquired, other than the statement it has been acquired. Of course I have already admitted that on the record and it is also admitted in the sworn answer. If that is a material matter in your mind relating to this question I merely give it to you for your information.

EXAMINER SPENCER: Gentlemen, my ruling is that such parts of the application as relate to the issues involved in this hearing may be admitted and counsel for the Commission will be requested to refer to such parts as, in his opinion, have a bearing on that question.

MR. McALLISTER: It is that part I indicated yesterday, Mr. Examiner. There must be some continuity in the manner in which it is offered. You can't pick out excerpts and attempt to make use of those. It isn't fair to the applicant nor respondent to expect the Commission to consider only an excerpt or a paragraph out of a whole document.

EXAMINER SPENCER: I don't care whether or not the paragraphs are cited, but the point that I make is that you refer to the portions you desire admitted in that application which have a bearing upon this case, and then those parts of the application which touch upon this question will be admitted.

MR. McALLISTER: Just as a practical matter, how am I going to do it, take a paragraph out?

EXAMINER SPENCER: No, I was saying I don't want you to take a paragraph out, but the questions covered in that application are the ones I am talking about that I want you to point out and designate. In other words, if you don't do that, I would have to read the whole ap-

plication and determine whether or not it is admissible. If there are certain questions covered in that application and you know what they are, if you will state what they are, then I will admit that part which treats of this question.

MR. McALLISTER: I certainly can't understand the ruling of the Examiner. Here is an application that sets out certain circumstances, an application is filed with the Securities and Exchange Commission seeking authority to acquire this additional two-thirds of the stock of Jersey Central Power & Light Company. They set forth the circumstances under which the 341,350 shares were acquired which is involved here.

EXAMINER SPENCER: That is just the question.

MR. McALLISTER: The statement has been made there is no such thing in there. It is covered in there.

EXAMINER SPENCER: If it is, and you want to point it out and read it into the record, that will be one question. If it is not, I am going to have to read the application myself to determine—

MR. McALLISTER: (interposing) Pick out a paragraph?

EXAMINER SPENCER: I don't care whether you pick out a paragraph, a page or a sentence. If there is something that will cover that question I will admit that part of it.

MR. McALLISTER: If you introduce a paragraph you are picking something out of the application. An application is only understandable when considered within its four corners. When you introduce a document you do so because something is contained in there that is pertinent, and you can't pick out that one sentence and put that in.

EXAMINER SPENCER: The ruling of the Examiner is you can specify the question which was involved and

the statements in that application which relate to the question, and then I can determine whether it ought to be admitted. If counsel for the Commission doesn't wish to do that, then I will take the time to determine for myself and reach a conclusion whether or not the whole application can be admitted, but without knowing what is in the application I can not admit it.

MR. McALLISTER: My request is the entire document be received as I indicated it yesterday, and my own understanding is that without the document as a whole I could not reasonably rely upon a sentence or a paragraph or some particular statement and then contend that is wholly unrelated to the balance of the application.

EXAMINER SPENCER: Then, the Examiner's ruling is he will not grant that request, but will take the time to determine what is in the application and direct such parts as are applicable to be admitted.

MR. McALLISTER: May I have an exception to that ruling?

EXAMINER SPENCER: Give the counsel for the Commission an exception to that ruling.

MR. McALLISTER: Do I get an exception?

EXAMINER SPENCER: Note an exception to that ruling for counsel for the Commission.

MR. PAXSON: Just for the sake of clarity, I understand the question on the application has not been ruled upon and it is not admitted at the present time?

EXAMINER SPENCER: It is not admitted.

MR. PAXSON: And is no part thereof at the present time?

EXAMINER SPENCER: That is right.

Call your witness, Mr. McAllister.

MR. McALLISTER: At this time, Mr. Examiner, I would like to offer for the record an agreement between Philadelphia Electric Company, Pennsylvania Power & Light Company, and Public Service Electric and Gas Company, the agreement being dated September 16, 1927, with the amendments of March 3, 1932, January 1, 1934, April 1, 1935, and identified in the files of the Commission as Public Service Electric and Gas Company F. P. C. rate schedule F. P. C. No. 3. Also supplements 1 to 6 inclusive relating to that same rate schedule, F. P. C. No. 3.

That is the agreement between Philadelphia Electric Company, Pennsylvania Power & Light Company and Public Service Electric and Gas Company which created or established the power pool about which various witnesses, or to which various witnesses have referred.

I ask that that agreement between the parties and the supplements thereto be received in evidence by reference. That agreement is a duly filed rate schedule submitted to the Federal Power Commission in accordance with the requirements of the Federal Power Act, and is an official document of the same nature as any other tariff on file with a Commission specifying the rates and the conditions under which electric service or interchange of power between the parties may be carried on.

EXAMINER SPENCER: Mr. Paxson.

MR. PAXSON: Objected to on behalf of both of the parties respondent as incompetent, immaterial and irrelevant. It does not appear that either of the parties respondent are in any way parties to that agreement. It has nothing to do, therefore, with any of the issues in this case and has no probative value. It is also not the best proof. There may be some subsequent agreement. I don't

know whether it represents the whole agreement or whether it does not.

EXAMINER SPENCER: The objection of counsel for the respondent and intervenor is overruled and the agreement will be incorporated in the record by reference.

MR. PAXSON: I wish an exception on that.

EXAMINER SPENCER: Exception noted for counsel for the respondent and intervenor.

MR. PAXSON: Off the record.

EXAMINER SPENCER: Off the record.

(Discussion off the record.)

EXAMINER SPENCER: On the record, Mr. Reporter. The Examiner wishes to state that counsel for the respondent and intervenor will be granted an opportunity to examine this contract and offer in evidence any proof or any rebuttal evidence that he wishes or that he sees fit, of course.

MR. McALLISTER: I likewise offer in evidence, Mr. Examiner, the agreement between New Jersey Power & Light Company, and Metropolitan Edison Company, bearing date of March 3, 1930, and identified in the files of the Federal Power Commission of New Jersey Power & Light Company rate schedule F. P. C. No. 1.

Also an agreement between New Jersey Power & Light Company and Central Hudson Gas and Electric Company, which agreement bears date of January 1, 1936, and is identified in the files of the Federal Power Commission as New Jersey Power & Light Company rate schedule F. P. C. No. 2.

I also offer in evidence the agreement between New Jersey Power & Light Company and Public Service Electric and Gas Company, bearing date of April 7, 1930 and identified in the files of the Federal Power Commission as

New Jersey Power & Light Company rate schedule F.P.C. No. 3.

MR. PAXSON: Pardon me, can these be offered separately so that I can get my objections in correct order, if there are any?

MR. McALLISTER: They are all three agreements, agreements with New Jersey Power & Light Company, and they all stand in the same position so far as I can see and that is the reason I grouped the three together. They are agreements between New Jersey Power & Light Company. The first one is with the Metropolitan Edison Company, the second one with Central Hudson Gas and Electric Company, and the third one is an agreement with Public Service Electric and Gas Company.

I offer these three agreements as described, Mr. Examiner, in evidence and ask that they be admitted by reference.

EXAMINER SPENCER: All right, sir.

MR. PAXSON: On behalf of the Jersey Central Power & Light Company I object to the admission of any and all of these agreements. Jersey Central Power & Light Company whose status is now to be determined is not a party in any of these agreements and anything contained therein can not in any way bind the intervenor, Jersey Central Power & Light Company.

As representing New Jersey Power & Light Company I object to the inclusion of these agreements on the ground they are incompetent, irrelevant and immaterial to the issue in this case, which is the status whether it is or is not a public utility. It is also an undue burden on the record.

Now with respect to the agreement between New Jersey Power & Light Company and Public Service Electric and Gas Company, what was the date of that agreement?

I thought we already had it in the record, the agreement between New Jersey Power & Light Company and Public Service Electric and Gas Company.

EXAMINER SPENCER: Read Mr. McAllister's statement.

MR. McALLISTER: I will state the agreement may be dated in 1930, but the important feature is it is now in effect.

MR. PAXSON: In other words I thought he had already introduced all the agreements between New Jersey Power & Light Company and Public Service Electric and Gas Company and I just plead surprise. It seems to me possibly I ought to have a right to look at it and inspect it to frame the proper objection. I don't know what it is.

EXAMINER SPENCER: You have that right and you will be afforded an opportunity to do so.

MR. McALLISTER: These agreements have the same status as any publicly filed tariff, whether with respect to railroad, gas, electric, utility or anything else. They are open to the public at the office of the filing company and open to the public in the office of the Federal Power Commission.

EXAMINER SPENCER: Yes, but in our procedure counsel for respondent is entitled to examine them to determine whether he wants to object or find a basis for objection.

MR. PAXSON: I admit they may be filed, may be publicly filed tariffs but the question is their materiality.

MR. McALLISTER: That is correct, and the movement of energy between these companies has been referred to time and again on this record and it is only proper that the record show the agreement between the parties which

covers that interchange of energy between the companies, and there is no agreement that I have offered here that does not refer directly to the movement of electrical energy as it has been referred to by witnesses on behalf of the respondent, the intervenor and the Commission. All of these agreements and this movement of energy have been referred to by all three parties.

EXAMINER SPENCER: Do you have that agreement here, Mr. McAllister?

MR. McALLISTER: We have it.

EXAMINER SPENCER: Do you wish to examine it now?

MR. PAXSON: I think possibly I was a little in confusion myself when I said I thought the agreement between New Jersey Power & Light Company and Public Service Electric and Gas Company had been introduced. I was then thinking of an agreement between New Jersey Power & Light Company and Jersey Central Power & Light Company. There has been no evidence admitted by anybody of an agreement between New Jersey Power & Light Company and Public Service Electric and Gas Company. I mean, no agreement has been offered.

MR. McALLISTER: No, there has not. I have checked there, and I don't think there is a possibility of duplication. There might be. There is an agreement between two parties and each company files that with the Commission and it is given a separate number under the file for each company, and I may have put in the same agreement by referring to it as Public Service Electric and Gas Company, and on the other hand the Jersey Central Power & Light Company, but I don't think I have.

EXAMINER SPENCER: Mr. Paxson, do you wish to examine it now?

MR. PAXSON: I don't think it is necessary for me to do so at the present time if Mr. McAllister wants to proceed. He has sent someone for them, hasn't he?

MR. McALLISTER: Yes, we have had them here most of the time during the hearing and have made reference to them.

MR. PAXSON: Then Mr. Examiner, you will reserve ruling?

EXAMINER SPENCER: I will reserve ruling.

MR. McALLISTER: I do know they are agreements presently in effect between the parties.

MR. PAXSON: And you know they are on file?

MR. McALLISTER: And I know they are on file.

EXAMINER SPENCER: All right, proceed, Mr. McAllister, we will rule on that later.

MR. McALLISTER: May we go off the record?

EXAMINER SPENCER: Off the record.

(Discussion off the record.)

EXAMINER SPENCER: On the record. Mr. Paxson.

MR. PAXSON: I have no further objections to the offer other than those that have already been incorporated in the record with respect to the agreement between Philadelphia Electric Company, Pennsylvania Power and Light Company and Public Service Electric and Gas Company dated September 15, 1927, and I understand your Honor has already ruled on that and I take an exception.

EXAMINER SPENCER: That is the first one.

MR. PAXSON: Yes, that has already been admitted over my objection.

EXAMINER SPENCER: Do you have an objection to the last four?

MR. PAXSON: As to the other three I have no further objections to offer except this objection I have already made as to the agreement between New Jersey Power & Light Company, which is expressed in the form of rate schedule F. P. C. No. 1, nor with respect to agreements dated April 7, 1930, between New Jersey Power & Light Company and Public Service Electric and Gas Company. I do offer this further objection, however, to the admission of a purported agreement, or it was introduced as an agreement between Central Hudson Gas and Electric Company and New Jersey Power & Light Company, which is labeled rate schedule No. 2 of New Jersey Power & Light Company, in that it appears to be merely a statement of the understanding under which electrical energy is interchanged and there is stated at the bottom there of this statement:

> "This written statement of the understanding under which electrical energy is interchanged and upon which settlement is made between Central Hudson Gas and Electric Corporation and New Jersey Power & Light Company is prepared for filing with the Federal Power Commission as required under Section B of its Order No. 36 and does not constitute a contract between said companies imposing any obligations upon them in respect to future interchange of relations."

As the Commission knows this was done, as it states, in response to a certain order. A statement prepared by the parties as to an existing arrangement doesn't necessarily constitute the entire agreement between the parties. There may be other circumstances and conditions and so forth and my objection is this does not necessarily constitute the contract between all parties. I don't know. I know in practice most of the companies did not have any written agreement when they complied with the Commission's request, and to the best of their ability they wrote up the statements which gave just in general what the arrangement was, but these memoranda don't necessarily comprise

the whole of the agreement and the understanding between the parties as has already been testified to at this hearing where a similar document was admitted.

MR. McALLISTER: I believe you have reference there to a document which you offered for the record yourself?

MR. PAXSON: That is correct.

MR. McALLISTER: With respect to the agreement between Public Service Electric and Gas Company and Staten Island Edison Corporation?

MR. PAXSON: That is correct, but they are very skimpy in their terms and there are various things that come up from time to time that have to be settled and we have had testimony that was done in this case, not in any way that these side arrangements in any way conflict with that, but they are not even governing, and you can always introduce oral evidence—

EXAMINER SPENCER (interposing): The agreements offered by counsel for the Commission will be admitted by reference and the objection of counsel for the respondent and intervenor as stated is overruled.

MR. PAXSON: And exception allowed?

EXAMINER SPENCER: Exception noted.

MR. McALLISTER: During the course of the hearing, Mr. Examiner, I asked that the reports filed with the Federal Power Commission by Jersey Central Power & Light Company, New Jersey Power & Light Company, Public Service Electric and Gas Company and Staten Island Edison Corporation be received in evidence. The reports to which I made reference were annual reports of those four companies and the report supplemental to the annual report designated as System Power Statement Form 64, which contains statistical data regarding the operations during the year for which annual report is made.

I believe at the time I offered those that I stated that before the conclusion of the hearing I would designate the pages in those reports which I would ask to be received in evidence so that respondents would know exactly, respondent and intervenor would know exactly to what parts of those reports reference was made and that there would be, therefore, no necessity for inclusion in the record under any circumstances all other pages in the report.

Now the pages which I desire to designate, are—

MR. PAXSON (interposing): Pardon me again. Can't we take each one separately? If I have to carry each one in my mind it will be difficult to keep track of them. We may have an objection for one and not for the other.

EXAMINER SPENCER: We will get to that, Mr. Paxson.

MR. McALLISTER: The annual report—

EXAMINER SPENCER (interposing): Were those reports offered on condition the pages were to be designated and admitted?

MR. McALLISTER: No, they were not.

EXAMINER SPENCER: You are now offering the pages which you propose to read now from these reports in evidence?

MR. McALLISTER: I am limiting my offer now to these pages. These reports have been received in evidence. I think all of the reports of these four companies have been received in evidence.

MR. PAXSON: I don't have any such recollection.

MR. McALLISTER: The record will speak for itself, and if by chance—

MR. PAXSON (interposing): If you are going to offer them, offer them.

MR. McALLISTER: If by chance there is some one of them that has not been offered I now offer these parts.

EXAMINER SPENCER: All right. Now what year is that for?

MR. McALLISTER: That is for the year 1937. The annual report is for the year 1937, and I offer pages 512—

EXAMINER SPENCER (interposing): Which one is that, all of them?

MR. McALLISTER: The same page contains the same information for all parties.

EXAMINER SPENCER: Each report, one or all?

MR. McALLISTER: All four.

MR. PAXSON: Will you name the four?

MR. McALLISTER: Have the reporter read that, please.

EXAMINER SPENCER: Read the statement of Mr. McAllister, naming the companies.

MR. McALLISTER: Staten Island Edison Corporation, Jersey Central Power and Light Company, New Jersey Power and Light Company and Public Service Electric and Gas Company.

EXAMINER SPENCER: Let the record show counsel for the Commission offers the following pages of the annual reports of those four companies.

MR. McALLISTER: F. P. C. No. 1, the number of the report.

EXAMINER SPENCER: Now you proceed.

MR. McALLISTER: The pages are 512, 513, 522, 523, 524, 531, and 532.

I also wish to add this statement, whenever with re-

spect to any page the space available on that page was not sufficient for a full statement required and supplemental sheets are inserted, it is to be understood that all such supplemental pages are to be considered as being introduced in evidence by reference as well as the pages appearing before of which they are a part.

What I have reference to they have page 522-A, B, C and so forth. There is no question about it?

EXAMINER SPENCER: All right.

MR. PAXSON: Now on behalf of both Jersey Central Power & Light Company and New Jersey Power & Light Company I object to the inclusion in this case of any and all parts of any reports filed by Staten Island Edison Corporation and by Public Service Electric and Gas Company. Any statements made by those companies which are not parties to this proceeding can in no way, shape or form bind or be any legal evidence against these two parties respondent. It is not the best proof and in any event it is pure hearsay, incompetent, immaterial and irrelevant and I object to it.

As to the report filed by the Jersey Central Power & Light Company, on behalf of New Jersey Power & Light Company I object to the inclusion of that report on the ground that New Jersey Power & Light Company is not a party to that report, has never seen it, does not know its contents, and can not be bound thereby. It is not the best proof and they can not be bound by the facts contained therein. My last statement it is not the best proof is ground for an objection on the part of New Jersey Power & Light Company itself, and I interpose an objection on that ground.

Now on behalf of Jersey Central Power & Light Company I object to the inclusion in this record of any data from the report of New Jersey Power & Light Company because Jersey Central Power & Light Company is not a

party to that report, can not be bound in any way by any facts stated therein, it is pure hearsay and incompetent, immaterial and irrelevant, and on the ground it is incompetent, immaterial and irrelevant, I have an objection on behalf of New Jersey Power & Light Company. It is not the best evidence of any facts or any evidence which may be stated therein.

EXAMINER SPENCER: Objection of counsel for respondent and intervenor is overruled and the pages of the reports are admitted in evidence.

MR. PAXSON: And exception noted?

EXAMINER SPENCER: And exception noted by respondent and intervenor.

MR. McALLISTER: Likewise during the hearing, Mr. Examiner, I offered the reports of New Jersey Power & Light Company and Jersey Central Power & Light Company, Public Service Electric and Gas Company and Staten Island Edison Corporation, which statements are filed with the Federal Power Commission on Form F. P. C. No. 64, for the year 1937, and I wish to designate in those reports pages 4, 5, 18, 22, and 28, and ask that they be received in evidence by reference.

EXAMINER SPENCER: Any objection?

MR. McALLISTER: Previously with respect to these reports I offered the entire report. I am now limiting that request and offering and asking that the parts of this report as indicated by the pages which I have referred to be received in evidence by reference.

EXAMINER SPENCER: Any objection?

MR. PAXSON: If the Commission please, I am unable to identify in my mind these reports from those previously offered. You offered them for 1937, and then you—

MR. McALLISTER: (interposing) The real force of my offer at the present time is to limit my prior offer to these particular pages. The report, as such, goes in, the verification and those matters which are pertinent to the determination of the authenticity of the report are in, but I am limiting, as far as I am concerned, the parts of the reports to the pages which I have designated.

MR. PAXSON: Mr. McAllister, I appreciate that very much, and would be very grateful if I really thought these reports had been admitted in evidence. I didn't understand any had been admitted in evidence, although some testimony has been permitted to be utilized over my objection by witnesses testifying, they have referred to reports over my objection. I may be in error. I did not know the entire report had been offered in this case previously up to this time.

EXAMINER SPENCER: My recollection is that counsel for the Commission offered them in evidence and stated at a later time in the proceedings he would specify the pages which were considered pertinent.

MR. PAXSON: Then counsel for respondents was not quite as alert as he should have been, if your recollection is correct. I now offer the same objection to the inclusion of these reports I offered heretofore with respect to the others. Mr. McAllister's statement was not responsive to my inquiry. I can not identify what he is offering. He previously offered pages for 1937 and now offers other pages for 1937. Are those different pages of the same report, or what?

MR. McALLISTER: They are different pages of different reports, one is Form 64 and the other is F. P. C. No. 1.

MR. PAXSON: That is what I wanted to know. This is 64 and the other is 1 for the same year.

EXAMINER SPENCER: Objection of counsel for respondent and intervenor overruled and exception noted, and the parts of the documents specified by counsel are received in evidence by reference.

MR. McALLISTER: Information contained on Exhibit No. 7, was derived from monthly reports filed with the Federal Power Commission by the utilities operating in the state of New Jersey showing interstate transfer of energy for the period January 1, 1938 to and including July, 1938. That information was supplied to the Federal Power Commission in response to an order of the Federal Power Commission and was embodied on reports filed on forms designated as Federal Power Commission, F. P. C. Form No. 46. I am merely indicating the source of the information. I am not asking those reports be received in evidence, Mr. Examiner, but I wanted to state clearly what the source of information was.

EXAMINER SPENCER: Didn't the witness testify the source of the information?

MR. McALLISTER: Yes, he did, Mr. Examiner, and I am not going to encumber the record with those reports.

EXAMINER SPENCER: Do you have anything else?

MR. McALLISTER: Yes. Now, for the years 1934, 1935 and 1936, I offer the annual reports of New Jersey Power & Light Company, Jersey Central Power & Light Company, Public Service Electric and Gas Company and Staten Island Edison Corporation in evidence by reference.

These annual reports being embodied on what is known as Form 11-127, and I particularly designate as the pages to which reference is made as pages 6, 7, 9, 28, 30, 31, 32, 33, and 34 of those annual reports. I ask that they be received in evidence by reference. With respect to those pages I ask that whenever with respect to any page the

space available was not sufficient, for a full statement required and supplemental sheets were inserted it would be understood such supplemental pages are to be considered as having been designated and received in evidence, so that the information with respect to that particular page may be complete.

MR. PAXSON: If it please the Commission, I have the same objection to that I have previously stated in full and in detail to the inclusion of these reports.

EXAMINER SPENCER: All right.

MR. PAXSON: I don't want to take up the time to specifically take them all up. I have a further objection to the inclusion of reports for 1934, 1930 and 1934, prior to July 26, 1935 on the ground that such data is entirely too remote to in any way be any proof of the status of the condition today, and the Federal Power Commission had no jurisdiction whatsoever over these companies until the enactment of the Federal Power Act which was dated August 26, 1935.

MR. McALLISTER: Mr. Examiner, I have endeavored through various witnesses to determine the distance from the plant of the Jersey Central Power and Light Company at South Amboy to the Mechanic Street substation of the Public Service Electric and Gas Company. The witnesses who appeared on behalf of the Respondent and Intervener seemed to be unable to furnish that information.

MR. PAXSON: Didn't Mr. Crumley know? Did you ask him?

MR. McALLISTER: I asked him and thought I got an answer, but when I read the record I found he limited it to the south bank of the Raritan River.

MR. PAXSON: I thought he did testify to that, but I don't know where, and I have not checked it myself.

MR. McALLISTER: I suppose I could have asked Mr. Bass yesterday but I did not expect to take him out of the field of the one subject.

The annual report filed by the Public Service Electric and Gas Company, FPC No. 1, on page 541, line 11, shows the distance from the Mechanic Street substation to the Raritan River as 1.2 miles.

The annual report of the Jersey Central Power and Light Company FPC Form No. 1, on page 549-A, on line 16, shows the distance from the South Amboy plant to the tie with Public Service Electric and Gas Company as being 0.93 mile, making a total distance from the plant at South Amboy to Mechanic Street substation of 2.13 miles.

I would like to have counsel for Respondent and Intervener agree to that as being the correct mileage. Otherwise I should be forced to ask that those pages be received in evidence.

Now, what is your thought?

MR. PAXSON: You will have to ask what?

MR. McALLISTER: Let those particular pages from the reports be received in evidence.

MR. PAXSON: As to that, of course, I would say that we have no objection to the correct distance being in the record, and I think it might be material in this case. I want to cooperate with you. Of course, I don't know whether the distance given in that report by the Public Service Electric and Gas Company is correct. But I am willing to agree to it, if we can show just by letter from Public Service Electric and Gas Company or by our engineers that it is different that that will be utilized. All we want is the correct distance.

EXAMINER SPENCER: Is Mr. Crumley here this morning?

MR. PAXSON: No, Mr. Examiner; he is not. I have no objection, if that is understood, if the Public Service Electric and Gas Company itself says that it is not correct.

MR. McALLISTER: I don't think it will vary by more than a few tenths; so I will go along. Everybody talks about two miles; but when you get them on the witness stand they say they don't know.

EXAMINER SPENCER: Let the record show that it is agreed by and between counsel for the Commission and counsel for the Respondent and Intervener that the distance between—

Mr. McAllister, will you stand the points?

MR. McALLISTER: The distance between the South Amboy plant of the Jersey Central Power and Light Company to Mechanic Street substation of the Public Service Electric and Gas Company at Perth Amboy is 2.13 miles, as shown by the reports of the two owning companies on forms FPC No. 1, filed with the Federal Power Commission for the year 1937.

EXAMINER SPENCER: Is that satisfactory?

MR. PAXSON: I stated that I am willing to let it go in unless upon check it may be determined that it is some other distance. If it is a slight matter I do not think it is material.

MR. McALLISTER: Will you be able to check that?

MR. PAXSON: I think we can check it. But I want to preserve my objection to the inclusion of any data from a report made up for one purpose to determine some possibly material and substantial facts to fix the status.

EXAMINER SPENCER: We never did finish the other. Let the record show that the distance between the two points named by Mr. McAllister is 2.13 miles, subject

to check and confirmation by the Public Service Electric and Gas Company.

MR. McALLISTER: They are not parties here.

MR. PAXSON: By Respondent.

EXAMINER SPENCER: I mean by Respondent.

MR. McALLISTER: Can you do that before the adjournment today?

MR. PAXSON: No; We cannot check it today. We do not have the data here. If we had, our witnesses would have given it to you. They will have to furnish other compilations by October 20th, and we can fix that as the date.

MR. McALLISTER: Mr. Examiner, regardless of all that has been said, I now offer for the record Page 541 of the annual report of the Public Service Electric and Gas Company, FPC Form No. 1 showing that the distance from Mechanic Street substation to the tie-in with the Jersey Central Power and Light Company at the Raritan River is 1.2 miles.

I also offer in evidence page 540-A of the report of the Jersey Central Power and Light Company, showing that the distance from the South Amboy plant of the company to the tie-in with the Public Service Electric and Gas Company at the Raritan River is 0.93 mile.

I ask that these pages be received in evidence insofar as they indicate the distance between the points named and as reported by these respective companies in their annual sworn reports to the Federal Power Commission.

EXAMINER SPENCER: For what year?

MR. McALLISTER: For the year 1937. These pages, of course, are in addition to the pages of those annual reports which I offered in evidence previously.

MR. PAXSON: As to the distance between the South Amboy plant and the interconnection with the Public Service Electric and Gas Company at the south bank of the Raritan River I am willing to stipulate that the distance is 0.93, because we have had testimony offered on this plant, that it was approximately 7/8 mile. So there is no necessity to offer it. He may offer it if he pleases, but it doesn't cover anything but what is in the record. I shall not object to it as incumbering the record if it is offered. As to any data taken from the Public Service Electric and Gas Company report purporting to show the distance, I object upon the ground that those reports and any data contained therein are not binding in any way on the two respondents in this case and that the information is incompetent, irrelevant and immaterial and not the best evidence.

EXAMINER SPENCER: The objection of counsel for Respondent and Intervener is overruled, and the pages designated are received by reference.

(The documents above referred to were received in evidence by reference.)

MR. PAXSON: And we note an exception, Mr. Examiner.

EXAMINER SPENCER: An exception is noted for counsel for Respondent and Intervener.

MR. PAXSON: I might say that I am not merely technical. I think the distance appears to be very short. I think they have left out the submarine cable in the distance, but I don't know. One of our engineers looked at a map and thinks so. But I cannot read a map on that small a scale.

EXAMINER SPENCER: You may proceed, Mr. McAllister.

Have you any further evidence, Mr. McAllister?

MR. McALLISTER: Yes, Mr. Examiner, I have, if you will indulge me for just a moment.

EXAMINER SPENCER: Very well.

MR. McALLISTER: I will now call Mr. Grimsley.

EXAMINER SPENCER: Let the record show that A. H. Grimsley is recalled by counsel for the Commission.

A. H. GRIMSLEY,

was thereupon recalled as a witness for and on behalf of the Commission and, having been previously sworn, testified as follows:

Direct Examination

BY MR. McALLISTER:

Q. Mr. Grimsley, you have testified previously in this proceeding and have been duly sworn?

A. That is correct.

Q. In the course of your testimony on direct you offered in evidence two exhibits which were received and marked as Exhibit 17 and 18. Isn't that true?

A. That is correct.

Q. Objection was made to the receipt in evidence of these exhibits because the information thereon related wholly to the year 1938. Have you prepared a supplemental exhibit showing similar information to that shown on Exhibit No. 17, Mr. Grimsley, for various days in the year 1937?

A. Such exhibits have been prepared under my direction.

Q. Let's take them one at a time. I show you an exhibit, Mr. Grimsley, and ask you if that exhibit shows for the year 1937 similar information to that shown for the year 1938 as recorded on Exhibit No. 17?

MR. PAXSON: Just a minute, please. May we see a copy of it?

MR. McALLISTER: Yes. But let him identify it. I wanted to have him identify it before we pulled them apart.

EXAMINER SPENCER: The statement you showed him is not an exhibit.

MR. McALLISTER: It is a statement. I used the word "exhibit" in a non-professional manner.

BY MR. McALLISTER:

Q. Mr. Grimsley, is it a fact that the information which you showed—

MR. PAXSON: May we have just a moment to look at this so that we can understand the question? We cannot understand this mass of figures on the instant.

MR. McALLISTER: I was going to identify it as being the same information.

MR. PAXSON: All right. I thought you were going to ask a question.

MR. McALLISTER: I will identify it thoroughly, and then you may have all the time you want.

MR. PAXSON: All right.

EXAMINER SPENCER: You may proceed.

BY MR. McALLISTER:

Q. Mr. Grimsley, is the statement which you have just identified a statement setting forth for the year 1937 information in the same detail and with respect to the same subject matter as that which is shown on Exhibit No. 17, which has been received in evidence in this case?

A. It is similar data compiled for certain periods during the year 1937.

Q. Does it show the same information that is shown on Exhibit No. 17 except for the different period?

A. That is correct.

Q. I mean the same character of information.

A. That is correct.

MR. PAXSON: Well, you may proceed, Mr. McAllister.

EXAMINER SPENCER: All right, Mr. McAllister, proceed, please.

MR. McALLISTER: Mr. Examiner, I offer in evidence the statement identified by the witness, and I ask that it be received as Commission Counsel's Exhibit No. 17-A.

EXAMINER SPENCER: Is there any objection, Mr. Paxson?

MR. PAXSON: I think I will offer an objection unless it is stated just where this data comes from. He says it was prepared under his direction.

MR. McALLISTER: I thought that was evident.

EXAMINER SPENCER: Proceed, please.

BY MR. McALLISTER:

Q. Mr. Grimsley, from what source was this information shown on the exhibit which I have just offered in evidence as Exhibit 17-A derived?

A. Taken from the records of the Public Service Electric and Gas Company.

Q. What records?

A. I think they are all confined to Mechanic Street substation records.

Q. The log sheets at the Mechanic Street substation?

A. That is correct.

Q. And that information was obtained under your direction by whom?

A. Mr. Woll.

Q. What are his initials?

A. They are L. B.

MR. McALLISTER: I will ask that the exhibit be received in evidence, Mr. Examiner.

EXAMINER SPENCER: Is there any objection, Mr. Paxson?

MR. PAXSON: I object to it unless the purpose of it is shown. It has not thus far been shown that it has any bearing on the issue now before us as to whether the Jersey Central Power and Light Company is a public utility.

EXAMINER SPENCER: What does the statement purport to show?

MR. McALLISTER: It merely shows for the year 1937 the same information that was shown on Exhibit No. 17 for the year 1938. It shows the information prior to the period when the transfer of the stock of the Jersey Central Power and Light Company was made to the New Jersey Power and Light Company, and coupled with Exhibit No. 17 it shows that that condition continued after the transfer of the stock. It shows a continuity of transaction between the movement of energy from the Staten Island Edison Corporation to the Mechanic Street substation.

EXAMINER SPENCER: All right. The objection of counsel for Respondent and Intervener is overruled.

The statement will be received in evidence as Commission Counsel's Exhibit No. 17-A.

(The document above referred to was received in evidence and marked Commission Counsel's Exhibit No. 17-A.)

BY MR. McALLISTER:

Q. Now, Mr. Grimsley, with respect to Exhibit No. 18, which shows information for the year 1938 only, did you also obtain information of a similar character for the year 1937, showing the movement of energy from Staten Island Edison Corporation to the Mechanic Street substation of the Public Service Electric and Gas Company and for the same identical period the movement of electric energy from Public Service Electric and Gas Company to Jersey Central Power and Light Company at South Amboy?

A. Yes; that is correct.

Q. Will you please state for the record, Mr. Grimsley, from what source this information was obtained for the year 1937?

A. This was taken from the log sheets of the Public Service Electric and Gas Company Mechanic Street substation.

Q. Those log sheets show, do they, the quantity of energy for various periods of time flowing from the Staten Island Edison Corporation to the Mechanic Street substation, and likewise the flow out of Mechanic Street to Jersey Central Power and Light Company?

A. That is correct.

Q. And it is that information that is recorded on this statement?

A. That is correct.

Q. Was that statement prepared under your direction?

A. It was.

Q. Will you state by whom it was prepared?

A. Mr. L. B. Woll.

MR. McALLISTER: Mr. Examiner, I now offer in evidence the statement which has just been identified by the witness, and I ask that it be received in evidence as Commission Counsel's Exhibit No. 18-A.

EXAMINER SPENCER: Is there any objection?

MR. PAXSON: No objection, subject to the right to check as to accuracy.

EXAMINER SPENCER: Let the statement be received as Commission Counsel's Exhibit 18-A.

(The document above referred to was received in evidence and marked Commission Counsel's Exhibit 18-A.)

BY MR. McALLISTER:

Q. Mr. Grimsley, with respect to Exhibit 18 this question was asked you at page 158 of the record:

"Q. Does it not mathematically appear that if Jersey Central Power and Light Company is receiving in excess of the total required from outside sources that necessarily a part of the supply moving to Jersey Central Power and Light must come from the Staten Island Edison Corporation."

Your answer to that question was:

"A. That is correct."

The record on page 155 through to 158 shows that with respect to that answer that you were referring to Exhibit No. 18. I will ask you if you would reach the same conclusion with respect to Exhibit 18-A?

A. It is the same character of data and it shows the same or substantially the same result.

Q. Mr. Grimsley, Mr. Bass, when he appeared as a witness in this proceeding on yesterday, supplied for the

record certain information showing the load of the General Cable Company upon Mechanic Street substation for certain hours and certain days, which information was obtained from the graphic recording demand meter maintained by the Public Service Electric and Gas Company in the plant of the General Cable Company at Perth Amboy, New Jersey. You recall that, do you not, Mr. Grimsley?

A. I do.

Q. Do you have before you Exhibit No. 13?

A. Yes, sir; I have.

Q. In what column on Exhibit No. 13 is the information as to the load of the General Cable Company shown in amperes recorded?

A. Omitting the date and time columns, it is shown in the third column to the right.

Q. The third column reading from left to right?

A. That is correct.

Q. The information supplied by Mr. Bass was stated in kilowatts, was it not, instead of amperes?

A. That is correct.

Q. Now, Mr. Grimsley, substituting for the load of the General Cable Company as shown on Exhibit No. 13 the kilowatt demand and flow of energy to General Cable Company, have you recomputed the information showing on Exhibit No. 13 to indicate the change which would be necessary on Exhibit No. 16 to carry into effect the information supplied by Mr. Bass?

A. I have had such a table prepared under my direction. Now, I want to find Exhibit No. 16.

Q. In your own language, Mr. Grimsley, will you please explain just what changes have been made in Exhibit No. 16, and the reason therefor, and the obtain retain through the use of the figures submitted by Mr. Bass?

A. By substituting the kilowatt records taken from the demand meters on the General Cable line in lieu of the—

Q. In lieu of ammeter readings?

A. In lieu of ammeter readings used on these lines, as shown on Exhibit No. 16, it affects the total load on the Mechanic Street substation, including Staten Island Edison Corporation. Likewise, it affects the figures shown in the column under "Remainder."

Then, in this new exhibit—

Q. Which you are now explaining?

A. Yes. In this new exhibit the same calculations were carried across, and instead of showing the flow over three transmission lines designated as A-183, N-196 and B-184, it was broken down to show the energy movements over the three lines as such.

It will be noted that the principal or the major effect by reason of using the kilowatt records taken from the demand meter is that during five time periods designated by an asterisk there is a flow of energy from Metuchen substation into Mechanic Street substation.

Then, in order to make this table comparable with the other one, it was necessary to extend it to include a division or a showing of energy expressed in percentage from two different sources.

In Exhibit No. 16 it is obvious that the supply to Mechanic Street from Jersey Central Power and Light Company was 100 per cent. Now, in these five cases that percentage of energy has been reduced from 100 per cent in the first case, December 15, 1937, 8:00 p. m. to 93.37 per cent. That expresses the amount of the energy requirements of the Mechanic Street substation which was supplied by the Jersey Central Power and Light Company.

Likewise, on the same line, 6.63 per cent of the energy requirements of the Mechanic Street substation were supplied by Metuchen.

The remaining four cases are expressed likewise, and I think it is unnecessary to read all of those percentages.

Q. The percentage which is shown in column 12, Mr. Grimsley, actually represents, does it not, the percentage of the total supply to Mechanic Street which originated on the lines of the Jersey Central Power and Light Company?

A. One or the other source.

Q. Now, Mr. Grimsley, will you please look at column 12? Take the example to which you referred a little while ago, December 15, 1937, 8:30 p. m. At that time the energy flowing from Jersey Central Power and Light Company to Mechanic Street substation was 10,000 kilowatts, wasn't it?

A. That is correct.

Q. The exhibit to which your are referring shows in column 8 that the quantity of energy coming from Metuchen was 710 kilowatts?

A. That is correct.

Q. The percentage which you show in column 12, 93.37, is the per cent which 10,000 bears to 10,710? Is that correct?

A. That is correct.

Q. It is a lot easier when you relate the figures than to ask a general question, of course. The others shown in percentage there in column 13 less than 100 were derived in the same manner?

A. That is correct. In explanation of this, Mr. McAllister, it is clearly recorded here, but I think I should state it. There was added to these General Cable demands five per cent, a liberal allowance for losses between Mechanic Street substation and the General Cable plant.

Q. In other words, on your prior Exhibit No. 16 the readings were taken at Mechanic Street?

A. That is correct.

Q. In this instance the readings were taken at the plant of the General Cable Company; so if there were line losses you have made what you state is a liberal allowance for that possibility of line losses in that transaction?

A. That is correct.

Q. I believe it was stated, Mr. Grimsley, with respect to the readings of the ammeters from which you derived the load of the General Cable Company that there was a possibility that those readings were not as accurate as they might be. Isn't that true? I mean that statement was made by a witness for the Respondent.

A. That is correct.

Q. As I understand it, you have substituted for those ammeter readings a graphic reading which records the integrated demands of the General Cable Company over fifteen minute periods? Is that correct?

A. That is correct. It removes it from the realm of doubt. There can be no question about these results.

Q. In substituting those readings which you say are unquestionably accurate for those which were questioned, Mr. Grimsley, have you preserved the same method of determination in this exhibit which was followed in Exhibit No. 16?

A. That is correct.

Q. By making some alteration by adding the additional column which you have here under the numeral column 12?

A. I would not call it an alteration. I think it was just necessary to set up those two percentage columns in order to carry the study through to completion.

Q. When I used the term "alteration" I meant the headings of columns rather than any change in any manner or method employed in the determination which you made?

A. I think that is correct.

Q Isn't it your conclusion from this statement, as you stated with respect to Exhibit No. 16, Mr. Grimsley, that whenever in column 12 it is shown that 100 per cent supply of energy came from the Jersey Central Power and Light Company that all of the energy flowing from

the Public Service Electric and Gas Company to the Staten Island Edison Corporation must have originated on the lines of the Jersey Central Power and Light Company?

A. Will you repeat the question, please?

EXAMINER SPENCER: Will the Reporter read the question, please?

(The question was then read by the Reporter.)

THE WITNESS: Yes; that is my conclusion.

BY MR. McALLISTER:

Q. And when they show a percentage which is less than 100 per cent, as you have in five cases, the energy moving from the Mechanic Street substation of the Public Service Electric and Gas Company to the Staten Island Edison Corporation would contain a mixture of energy made up of energy coming from the Jersey Central Power and Light Company and Metuchen, the percentage coming from the Jersey Central Power and Light Company being expressed in column 12 and that coming from Metuchen being expressed in column 13? Isn't that true?

A. I would not say that this indicates clearly that the movement of energy to Staten Island in these five cases is a mixture. It may be or it may not be.

Q. What is your opinion? That they would divide in about the proportions you state here?

A. I think that would be a logical deduction that one might make.

MR. McALLISTER: You may cross-examine, Mr. Paxson.

EXAMINER SPENCER: I think we will recess at this time until 1:30.

MR. McALLISTER: Before recessing, Mr. Examiner, may we introduce the exhibit which has been

identified by the witness? I ask that it be received in evidence as Commission Counsel's Exhibit 16-A.

EXAMINER SPENCER: Have you any objection?

MR. PAXSON: I have no objection to the offer of this as an exhibit insofar as transactions appear to be prior to March 14, 1938, subject, of course, to the right to check the accuracy thereof. Insofar as this exhibit purports to show any transactions or give any data for periods subsequent to March 14, 1938, I object thereto upon the ground that such data is incompetent, irrelevant and immaterial, having no bearing on the issue in this case, which is the acquisition of certain stock of March 14, 1938.

EXAMINER SPENCER: Let the objection of counsel for the Respondent and Intervener be noted. The objection is overruled.

This statement will be received in evidence as Commission Counsel's Exhibit 16-A.

(The document above referred to was received in evidence and marked Commission Counsel's Exhibit 16-A).

EXAMINER SPENCER: At this time, gentlemen, we will recess until 1:30.

(Thereupon, at 12:35 o'clock p. m., a recess was taken until 1:30 o'clock p. m.)

AFTER RECESS.

(The hearing was resumed at 1:30 o'clock p. m., pursuant to recess.)

EXAMINER SPENCER: The hearing will be resumed.

Whereupon

A. H. GRIMSLEY,

the witness on the stand at the time of recess, resumed the stand and testified further as follows:

EXAMINER SPENCER: Mr. Paxson, are you ready to proceed with the cross-examination?

MR. PAXSON: I have no questions.

EXAMINER SPENCER: No questions?

MR. PAXSON: No, sir.

EXAMINER SPENCER: All right, do you have any more witnesses?

MR. McALLISTER: Yes, I have, Mr. Examiner.

EXAMINER SPENCER: Do you say you do have some more witnesses?

MR. McALLISTER: Yes, I do have. I am just assembling my material.

EXAMINER SPENCER: In the meantime will you let me have that application that was filed with the Securities and Exchange Commission?

MR. McALLISTER: Yes, sir. I will call Mr. Bennett, please.

(Witness excused.)

Whereupon

CLAUDIUS E. BENNETT,

a witness produced by and on behalf of the Federal Power Commission, having been first duly sworn by the Examiner, was examined and testified as follows:

Direct Examination

BY MR. McALLISTER:

Q. Mr. Bennett, will you state your full name and address for the record, please?

A. Claudius E. Bennett, Washington address 2007 Klingle Road, Northwest.

Q. Mr. Bennett, I believe you are an electrical engineer, is that true?

A. That is true.

Q. Will you state what your education and experience has been, not in too great detail?

A. I graduated from the University of Nebraska with a Degree of Bachelor of Science in Electrical Engineering, and I took a post-graduate course and received Master of Science Electrical Engineering Degree from the University of Illinois and some years later presented theses and received the professional Degree of Electrical Engineer.

Q. What has been the nature of your work, Mr. Bennett, in the electrical engineering field, beginning with the time you left college until the present time?

A. After I left college I went with the Westinghouse Company.

Q. Will you give the years, please, so we can kind of follow along?

A. Shall I back up to the Degrees?

Q. You might state those briefly.

A. The original Bachelor of Science Degree from Nebraska was in 1909. The Master Degree in 1912, and the Professional Degree of Electrical Engineer in 1928.

I went with the Westinghouse Company as student engineer or graduate student in 1912, left them, and while there was employed in the usual type of test work, and at one time during the period was loaned to Ford, Bacon and Davis in connection with some consulting engineering work which they were doing in Pittsburgh.

I went with the Electric Bond and Share Company on Utah, Idaho properties, in 1913, remaining with them until 1918. During that time I was employed in various capacities of inspector, maintenance man, load dispatcher, plant superintendent, and construction work. I left the Utah Power and Light Company to go with Canadian General

Finance Company on Spanish properties in 1918, remaining there until 1926.

Q. Where was that, Mr. Bennett?

A. That was in northeastern Spain with headquarters in Barcelona and with properties occupying roughly the territory from the Ebro River north to the Spanish Frontier, west to the territory roughly fixed more or less on a line with Lerida, and south some distance beyond the Ebro River.

Q. What was the nature of your employment and of the work you were engaged in while you were on this job in Spain, Mr. Bennett?

A. I went there as assistant to the chief electrical engineer. I occupied various positions through the property. Was made chief electrical engineer of the property and acted at various times as acting chief engineer, once for a period of about a year, and at various other times for short periods. As chief electrical engineer I had charge of design and minor construction, by minor construction I mean the construction of substations, transmission lines and things of that sort, excluding the main hydraulic plant, which we constructed, on which I only had the electrical design, but not of the actual construction.

And, I was also in charge of the operating and maintenance of the production, transmission and distribution systems of the company. This was a company operating low voltage lines, that is to say 6,600, 11,000, 13,000, 22,000, 25,000, 88,000 and 110,000 volt lines, and that is all.

Q. Those lines, 110,000 volts are not low voltage lines you referred to in the beginning?

A. No, I offered that as a suggestion. It was all lines from low voltage up to and including the higher voltage lines the company operated.

Q. I think you said you remained with that property until 1928?

A. 1926.

Q. 1926?

A. And in 1926 I was transferred to the Mexican properties, remaining there until 1927.

Q. These Mexican properties are controlled by whom?

A. Controlled by the Canadian General Finance Company.

Q. The same company by whom you were employed while in Spain?

A. That is correct. On the Mexican property the duties were very similar, the property was very similar and the duties much of the same capacity that I was in, although I was not in charge of electrical design on Mexican properties. The company set-up was somewhat different.

Q. Where are the properties in Mexico located?

A. These properties are located, the principal city is Mexico City and the surrounding country and hydro-electric properties in adjacent provinces.

Q. Can you give us the name of the company in Mexico?

A. The translation of it is Mexican Light and Power Company. I take it you don't want the actual official Spanish name of it.

Q. No, I think the other is more significant in this record, Mr. Bennett.

A. Yes, sir.

Q. What was the name of the property which you were directly associated with in Spain, giving us the English equivalent for the Spanish name?

A. The property with which I was originally employed was the Ebro Irrigation and Power Company, that is the English translation, and a subsidiary called, with my freely translated Spanish, Barcelona Light Company, and at that time we were interconnected with the French property, translated freely again, Electrical Energy of Catalonia Company, and with a Spanish, another property called Catalonia Gas and Electric Company.

Q. You were also interconnected with the latter named company?

A. We were interconnected with the companies. We later absorbed the company referred to and I would be afraid I was crossing the record up, and may I refer to this as the Energia Electrica. We later absorbed that company and put it completely within our own unified operation, if you will.

Q. Now, Mr. Bennett, subsequent to your employment on the properties in Mexico, will you continue with a description of your experience?

A. I returned to the United States at that time and went to Florida. Then, in 1928, I became instructor in electrical engineering at the University of Florida and in the following year I became assistant professor and electrical engineer for the state-owned radio station WRUF. This was a 5 kilowatt radio broadcast station. In 1930 I became city manager of the City of Fort Pierce, Florida, and as such was also superintendent of utilities.

Q. Did that involve any electrical property?

A. That involved various types of property operated by the city, water and electricity included in that, and the management of various other properties, a port district, a golf club, a hospital, and a few other things in addition to the usual city functions.

Then in 1932 I went to the University of North Carolina as Associate Professor of Electrical Engineering and as such conducted classes and laboratory courses in the usual range of electrical engineering subjects, including a course in advanced transmission theory and a graduate course. This position was in the nature of a temporary work, filling in between the resignation of the department head and the time when the new department head was able to take over his duties.

Toward the end of 1933 I was employed by the Federal Power Commission as engineer and have been with the

Commission ever since with my major duties in this time problems in connection with transmission and distribution, problems and investigations, I should say.

Q. Mr. Bennett, I believe you were in attendance at this hearing throughout the time when we had under consideration the lines which connected generating plants of Jersey Central Power & Light Company with the Mechanic Street Substation of Public Service Electric and Gas Company, which were discussed and described as consisting of a subterranean conduit cable to the north bank of the Raritan River, a submarine cable crossing the Raritan River, and a tranmission line on poles extending from the south bank of the Raritan River to the plant of the Jersey Central Power & Light Company at South Amboy, New Jersey.

It was also stated on the record that there were no customers served by that line at any point between the Mechanic Street substation in Perth Amboy and the power plant of the Jersey Central Power & Light Company in South Amboy.

Likewise, it was noted on the record that the circuit from Mechanic Street Substation to Atlantic Substation of the Staten Island Edison Corporation consisted of a subterranean cable to the Kill Van Kull, a body of water separating the state of New York and the State of New Jersey, at that location that the line continued through a submarine cable across that body of water and that cable continued from the east bank of that body of water to the plant of the Staten Island Edison Corporation by means of a subterranean cable.

With respect to that particular line it was also testified that there was no service to any customers between Mechanic Street Substation and Atlantic Substation of Staten Island Edison Corporation.

Now I ask you, Mr. Bennett, as an engineer whether

you would classify such lines as transmission lines or otherwise?

MR. PAXSON: Just a moment. Did Mr. Bennett ever see those lines to know anything about them, or is he giving his opinion because he has listened to some testimony?

THE WITNESS: Shall I answer the question?

MR. McALLISTER: The question, Mr. Examiner, is based entirely upon information that was given in the record by the various witnesses that appeared here who had examined the cables and connections and who testified what they consisted of.

EXAMINER SPENCER: Mr. Bennett, do you recall the testimony that was given?

THE WITNESS: Yes.

EXAMINER SPENCER: And your question is based upon that testimony?

MR. McALLISTER: That is correct.

EXAMINER SPENCER: In his opinion would such lines be transmission lines?

MR. McALLISTER: That is true.

EXAMINER SPENCER: Proceed, Mr. Bennett.

THE WITNESS: On the basis of the testimony which I have heard in this case these lines are what engineers in ordinary practice refer to as transmission lines and function as such.

MR. PAXSON: What was that last?

THE WITNESS: And function as such.

BY MR. McALLISTER:

Q. In connection with that last question I believe

the record further shows, Mr. Bennett, that these particular lines which I described are 26.4 KV lines, isn't that true?

A. I believe they have been so testified to. I have no direct knowledge.

Q. And if the record does show that they were 26.4 KV lines, would that fact in any way alter your answer?

A. No, it would not because the ordinary engineering concept of a transmission line is based upon its functions and not its voltage.

Q. Mr. Sibley testified that in determining the manner in which a load on Mechanic Street coming from Staten Island Edison Corporation would divide between South Amboy plant and Jersey Central Power & Light Company and other generating plants on the Public Service Electric and Gas Company, would not be determined or increased by the impedance in the lines between Mechanic Street Substation and the plants of the Jersey Central Power & Light Company at South Amboy, New Jersey, and the impedance in the line of the Public Service Electric and Gas Company between Mechanic Street Substation and other generating plants on the property of the Public Service Electric and Gas Company, which might be in operation at the time the particular load from Staten Island Edison Corporation attached itself to the Mechanic Street Substation.

Do you recall that statement by Mr. Sibley?

A. I recall some such statement, but I do not remember the exact way in which the statement was made.

Q. I call your attention to page 858 of the record, the transcript, Mr. Bennett, and ask you if the statement made by the witness Sibley is recorded on that page or any other page, and if that is the testimony of the witness which you said you recollected?

MR. PAXSON: How much of it, now? Let us know.

MR. McALLISTER: Well, we will let him testify that.

MR. PAXSON: Of course you are asking the question.

MR. McALLISTER: I am asking the question, but it is apparently proper to limit what he is referring to by presenting him with the transcript.

THE WITNESS: Did you refer to the question at the bottom of the page without regard to the quantity of energy that would be picked up and so forth?

BY MR. McALLISTER:

Q. I have reference to that question, Mr. Bennett, but in relating the events, I had reference to the prior question which I had directed to Mr. Sibley on cross-examination, beginning with my question regarding Exhibit 8 and leading up to that point on page 858 where the question to which you refer is to be found.

The general matters, as I recall them from the record, are those which I stated in my question, and it is this particular question to which I had direct reference in putting the question as I did to you, the question being:

"Without regard to the quantity of energy that would be picked up by these various generators that are on the line, would the impedance in the lines between Mechanic Street Substation and the generating plants have anything to do with the quantity that would be picked up?"

And the answer was no, sir.

"Q. Nothing whatever?"

And the answer to that was no.

Now, do you want that question read in the light—

A. (Interposing) Do you wish me to state whether or not I agree with that?

Q. Yes.

A. That statement is not correct.

Q. The statement made by the witness Sibley is not correct?

A. As I understand his answer.

Q. Will you explain in the record why you say it is not correct?

A. This was, as I recall, the testimony in connection with the application of a sudden load at the substation on the Public Service System and if we are dealing with a plant near at hand and various other plants, dealing as it was in this case with a plant near at hand and from many other plants farther away, the impedance of the lines would affect very greatly the amount of energy that is instantly picked up when a sudden demand comes on the line.

Q. I believe in that assumption the testimony as given by the witness Sibley, it was stated that that sudden load on the line of the Public Service Electric and Gas Company at Mechanic Street Substation originated through the interconnection with Staten Island Edison Corporation, isn't that true?

A. I think so.

Q. Is that shown by Exhibit 8 as introduced by the respondent?

A. I believe so.

Q. You refer to the load on the line. You were referring to the load on the bus at Mechanic Street Substation.

A. Yes, I was referring to the load which was suddenly applied to the Mechanic Street Substation and in so doing to the lines supplying the Mechanic Street Substation. That was my thought in using the word line; I probably should have used the word substation or substation bus bar. That would have been more nearly correct.

Q. How is that sudden load shown on the chart which is Respondent's Exhibit No. 8?

A. That sudden load is indicated on the upper chart

in the part reading from Public Service Electric and Gas Company to Staten Island Edison Corporation.

Q. Isn't it the other way? I think you are reading the wrong designation.

A. Public Service Electric and Gas Company to Staten Island Edison Corporation. I think that was the part I read.

Q. I believe that is right. I am the one that is mistaken.

A. And is shown as a sudden rise in load taken by the Staten Island Company at approximately 2:24, I would say from the record, and amounting to an abrupt load of slightly more than 10,000 kilowatts.

Q. Now is it your testimony, Mr. Bennett, that that sudden load on Mechanic Street Substation coming from Staten Island Edison Corporation would have some effect upon the generating plant of the turbo generators in the South Amboy plant of Jersey Central Power & Light Company?

A. Yes, sir.

Q. Does the chart show that?

A. It does.

Q. How is it indicated on the chart?

A. Directly at the corresponding time on the lower chart, which indicates power from Jersey Central Power & Light Company to Public Service Electric and Gas Company, there is a sudden rise of load at the same time amounting as I read the chart, to perhaps 2,500 kilowatts.

Q. The abrupt increase in the flow of energy from Jersey Central Power & Light Company to Mechanic Street Substation amounted to 2,500 kilowatts, is that true, Mr. Bennett?

A. Will you read the question, please?

(Whereupon the reporter read the pending question as recorded.)

THE WITNESS: This is an abrupt increase in power from Jersey Central Power & Light Company to the Public Service Electric and Gas Company, amounting to approximately 2,500 kilowatts at the same time that this sudden Staten Island demand came on on Mechanic Street Substation, and it is my judgment that it was produced by this sudden load from Staten Island Edison Corporation.

BY MR. McALLISTER:

Q. You mean then this sudden increase in flow of electric power from Jersey Central Power & Light Company went to Mechanic Street Substation at that time when the sudden load from Staten Island Edison Corporation came on to the bus at Mechanic Street Substation, is that true?

A. I mean that the increasing demand for power from the bus bars of Mechanic Street Substation causing this station to draw power from available sources of power to the substation, and that the abrupt rise shown in the supply from Jersey Central Power & Light Company substation to that substation from Jersey Central Power & Light Company to that substation, is the amount which was contributed by the South Amboy plant as a result of the sudden load.

Q. Do the impedances over the line have anything to do with the distribution of that type of load coming onto a bus in the substation, Mr. Bennett?

A. Yes, the impedances very largely determine the instantaneous flow of energy from different sources to the bus bar on which there is a sudden demand for increase in energy. By impedance I mean the impedance of the source of supply and of the connecting circuits and equipment.

Q. If the distance from Mechanic Street Substation to the plant of Jersey Central Power & Light Company at South Amboy was approximately 2.13 miles and the dis-

tance to the next more distant plant from which available electric power might be obtained to furnish the energy to meet the sudden demand was 12 to 14 miles distant, would you conclude as an engineer, Mr. Bennett, that the South Amboy plant would be called upon to pick up a part of the sudden load to Mechanic Street Substation?

A. The testimony has shown that the lines between the South Amboy Station and the Mechanic Street Substation between the various other generating stations and Mechanic Street Substation are lines of considerable capacity and therefore the power which flows instantaneously on the occurrence of a sudden demand will be drawn from the various available sources, including South Amboy.

Q. And with respect to South Amboy what would be your judgment as to the division of power because of the closeness of that station to Mechanic Street Substation as compared with the fact that the other generating plants are more distant, and as was stated on the record by various witnesses, from 12 to 14 miles from Mechanic Street Substation.

MR. PAXSON: Objected to unless this witness shows he is familiar with the South Amboy Station and other generating plants of Public Service Electric and Gas Company, which he says are connected some distance away. He doesn't show this witness knows anything about the capacity of the plant, the size of the lines or any of the matters which might be necessary in such a question.

EXAMINER SPENCER: Read that, Mr. Reporter.

(The reporter thereupon read the pending question as recorded.)

MR. PAXSON: He is putting it on one basis, distance, without any other characteristics.

EXAMINER SPENCER: If the witness has knowledge sufficient to base his answer on, he may answer.

MR. PAXSON: He hasn't shown it thus far, if the Commission please. He purports to testify from having listened to some testimony.

EXAMINER SPENCER: I don't think the question includes that supposition. The only thing stated in the question was as to the distances that witnesses had testified to. Do you want to hear the question read again?

MR. PAXSON: Yes.

EXAMINER SPENCER: Read it, Mr. Reporter. (The reporter thereupon read the pending question as recorded.)

MR. PAXSON: He hasn't shown this witness even knows what the plants are that are more distant, how many there are, what their capacity is, doesn't know anything about the distance, hasn't laid any proper basis for judgment, hasn't shown this man ever saw any of the plants, and there is the question of efficiency and how well they are maintained.

EXAMINER SPENCER: All right, he may answer.

MR. PAXSON: I take an exception.

EXAMINER SPENCER: Objection overruled and exception noted.

THE WITNESS: In calculating, if I were called upon to calculate the division of load in a case of this sort, or to exercise judgment, as I understand the question to be on the amount of power that would be contributed by the South Amboy Station, one must

take into consideration not only the distance of the lines, but their characteristics, other characteristics of lines and generators. I know from reports that have been submitted—

MR. PAXSON: (interposing) Pardon me.

THE WITNESS: I know from reports that have been submitted, the power reports which are submitted to this Commission, that the plant at South Amboy is of, as I recall it, about 50,000 kilowatts capacity. It was testified that the capacity of these other plants at the time was perhaps 250,000 kilowatts. Taking into mind all of these factors, the distance, the capacity, the characteristics of the line, that have been testified to, it is my judgment that the amount of load apparently as shown by the record is what one would expect.

MR. PAXSON: Is what, I can't hear very well?

THE WITNESS: That the amount of load as shown by this sudden pick-up on the curve of power from Jersey Central Power & Light Company to Public Service Electric and Gas Company at the Mechanic Street Substation is the amount that in my judgment is reasonable.

BY MR. McALLISTER:

Q. In other words, the amounts which South Amboy plant contributes to the load on the bus at Mechanic Street Substation.

A. I know that South Amboy Station must contribute a considerable quantity of energy with operating conditions as they have been testified to at the time, and I said that the amount which is indicated on the graph is a reasonable amount for it to contribute and is probably the amount it actually did contribute.

Q. By that you are referring to the sudden increase of 2,500 kilowatts shown to have been the increase in the quantity of electrical power flowing from Jersey Central Power & Light Company to Mechanic Street Substation at about, what time was that?

A. 2:24.

Q. 2:24, was it shown on there, you testified to?

A. About 2:24 was about the time I stated.

Q. 2:24, and which sudden increase was coincidental with the sudden demand on Mechanic Street from Staten Island Edison Corporation as shown by the red line extending down to something more than 10,000 kilowatts sudden demand at that same time.

A. That is correct.

Q. Now, Mr. Bennett, will a generator—

EXAMINER SPENCER: (interposing) Mr. McAllister, let me interrupt you a moment please. I want to ask the witness a question.

MR. McALLISTER: All right, Mr. Examiner.

BY EXAMINER SPENCER:

Q. Mr. Bennett, suppose there are two plants of the same capacity, one two miles away, and one ten miles away, what effect would a sudden demand have on the pick-up with respect to each?

A. Plants of the same capacity and I assume with the same generating characteristics, same general characteristics of the generators?

Q. Yes.

A. In that case, the difference in the amount of power instantly picked up would be fixed by the impedance characteristics of the connecting lines and generators. Therefore, the plant that was nearest to the load, if the transmission lines were also of similar characteristics, would be greater than the amount picked up by the plants more distant.

The exact division of the load can only be determined by computation, taking into account the transient characteristics of generators, the inertia characteristics, and all of the other characteristics of the equipment. All one can say offhand is that the nearest plant would instantaneously pick up a greater portion of the load than the plants more distant.

EXAMINER SPENCER: Thank you, sir, you may proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. Although a plant instantaneously picks up that major part of the load, may the operator by manual control within a reasonably short time thereafter bring the load on that plant down to what it was before the sudden demand, or make it even lower if he so elects?

A. The operator by manual operation can adjust the steady flow of energy he desires according to the amount of steam he admits to the turbines by his manipulations.

Q. Now, Mr. Sibley, on page 862 in answer to this question—I think I will have to read it. A series of questions on page 862. On that page I put this question to Mr. Sibley:

"Q. Well, what load would be required before there would be any change in the operation of the plant at South Amboy?" Referring to the sudden load thrown onto Mechanic Street about the time you have testified to, Mr. Bennett. The questions and answers I refer to are as follows:

"Q. Well, what load would be required before there would be any change in the operation of the plant at South Amboy?

"A. I don't know, but it would be in considerable excess of these cable tie lines.

"Q. The generator at South Amboy at no time

would be affected by a change in load of 10,000 kilowatts?

"A. On Public Service Electric and Gas Company?

"Q. On Public Service Electric and Gas Company, no matter where it came on.

"A. I don't think it would. We are dealing with large quantities here.

"Q. Would 25,000 affect it? 25,000 kilowatts as a sudden load on Public Service Electric and Gas Company, would that affect the speed of the generators?

"A. I don't think so.

"Q. You don't think so?

"A. No."

Now with respect to that line of questioning, Mr. Bennett, I will ask you whether or not a certain load of 25,000 kilowatts suddenly imposed on the bus at Mechanic Street Substation would influence in any way the turbo generators in the plant of Jersey Central Power & Light Company at South Amboy, if such a load would affect those turbo generators, will you kindly explain in what manner they would react to that load?

MR. PAXSON: Objected to on the ground that this witness is not qualified, not having shown that he knows anything about the characteristics, efficiency or condition or the maintenance of the turbo generators connected with the South Amboy Station.

EXAMINER SPENCER: I will permit the witness to answer the question.

THE WITNESS: Will the reporter read the last portion of the question?

MR. PAXSON: Exception.

(The reporter thereupon read the portion of the question as requested.)

THE WITNESS: A load of that magnitude applied at the Mechanic Street Substation would most certainly affect the generators at the South Amboy Station. The instantaneous effect of this, of the sudden application of this load would be to slow down these machines, making them, for a brief interval of time, tend to lag behind the remaining generators on the System. This instantaneous slowing down of the generators in South Amboy would, therefore, cause the governors to operate regardless of the number of plants that there might be on the System at points more remote from Mechanic Street Substation. The operation of the governors would then cause more steam to be admitted to the turbines and would again bring the machines up to a speed corresponding to the remainder of the System, and cause the machines to carry more load than they were carrying at the time that this sudden load was imposed on the System.

BY MR. McALLISTER:

Q. Would a change in load amounting to 2.8 per cent on any turbine operate in such fashion as to cause that turbo generator to—put it this way, cause the governor on that turbo generator to react so that that machine would pick up an additional load?

MR. PAXSON: I have the same objection as I had before. I don't want to interrupt unduly.

EXAMINER SPENCER: That is all right, let the objection be shown and exception noted.

A. As I understand your question it is whether or not a change of load of 2.8 per cent presumably of the rating of the machine would cause any governor to operate.

If that is the question I can state that in general that it would. Governors differ somewhat in sensitivity. The best governors have a sensitivity around 1 per cent. Older and poorer types of governors, not being so good, but in general a 2.8 per cent increase of load would cause the governor to operate.

BY MR. McALLISTER:

Q. Do you know when the plant at South Amboy belonging to the Jersey Central Power & Light Company was constructed?

A. As I recall—

MR. PAXSON: (interposing) Let me hear that question before you answer that.

MR. McALLISTER: When was the plant at South Amboy constructed?

MR. PAXSON: I object. This man doesn't know anything about it.

EXAMINER SPENCER: Do you know when it was constructed?

THE WITNESS: I have seen the report submitted by the company when it was constructed and it was stated in that report, 1930. I assume that report is correct.

MR. McALLISTER: Furthermore the record in this case shows from the testimony of the witness Crumley that it was constructed in 1930 and placed in operation the latter part of 1930.

MR. PAXSON: That statement is correct.

MR. McALLISTER: So there is no question about the time.

EXAMINER SPENCER: You have got your witness corroborating the witness for the respondent.

MR. McALLISTER: And admission of counsel.

EXAMINER SPENCER: Both counsel agree to it, so proceed.

BY MR. McALLISTER:

Q. Now, Mr. Bennett, are you familiar with the type of generator that would be installed in a plant as late as 1930 and the characteristics of a governor that would be in use on the turbo generators in a modern plant of as recent construction as 1930?

A. Yes.

Q. What would you say as to the sensitivity of a governor upon any of the turbo generators in Jersey Central Power & Light Company at South Amboy?

MR. PAXSON: Objected to unless the witness knows something about those generators other than what he has heard that they were built in 1930. He isn't qualified.

EXAMINER SPENCER: What was the question?

MR. PAXSON: He hasn't even shown he was a mechanical engineer.

MR. McALLISTER: You will have an opportunity to go into that on cross examination.

MR. PAXSON: I have got to get my objection in.

EXAMINER SPENCER: What was the question?

MR. PAXSON: I object on the ground this witness has not qualified as a mechanical engineer.

EXAMINER SPENCER: I will sustain the objection, but not on that ground. The witness can testify as to what—

Read the question.

(Whereupon the reporter read the pending question as recorded.)

EXAMINER SPENCER: The witness can testify what in his opinion would be the sensitivity of a governor of a certain type and such as is at that plant, if he knows the type.

THE WITNESS: Shall I answer?

EXAMINER SPENCER: Yes.

BY MR. McALLISTER:

Q. Can you answer the question, Mr. Bennett?

A. Governors on turbo generator sets of design as late as this would certainly have a sensitivity as good as 2 per cent and probably as good as 1 per cent of full load.

MR. PAXSON: I move the answer be stricken. He hasn't yet shown he knew anything about the turbo generator in this plant. He hasn't yet shown he did.

THE WITNESS: Mr. Examiner, may I state the basis for that answer?

EXAMINER SPENCER: Yes, you may explain your answer.

THE WITNESS: In the operation of electrical systems, one buys turbo generators and other equipment for certain performance. The man who buys equipment for guaranteed performance is not interested at all in the design of equipment or how the manufacturer attains that performance, but he does know what requirements his governor must have and his generators and other parts of the equipment in order to operate in parallel with other machines on the system, and it is on the basis of modern interconnected system performance this answer is based.

EXAMINER SPENCER: Let the objection of counsel for the respondent be noted and the objection overruled and exception granted.

BY MR. McALLISTER:

Q. In other words, Mr. Bennett, your answer is based on statements which evidently appear on this record to the effect that Jersey Central Power & Light Company is interconnected with Public Service Electric and Gas Company, and through that company to Philadelphia Electric Company, Pennsylvania Power and Light Company, and a great many other companies which operate in parallel and in synchronism each with the other?

MR. PAXSON: Now, just a moment. I object to that. He is making a general statement that it evidently appears on the record. It isn't so stated in the record at all. I don't think he can make any such general statement. It is very leading. It is a leading question and asks for yes, of course.

EXAMINER SPENCER: Confine your question,—

MR. PAXSON: (interposing) And it also involved a legal conclusion.

EXAMINER SPENCER: Confine your questions to matters within his knowledge. If he knows from the record what these generators are, why he can talk about them.

MR. McALLISTER: I will approach the matter in this way, Mr. Examiner: This question was put to Mr. Sibley—

MR. PAXSON: (interposing) Where?

MR. McALLISTER: On page 862.

BY MR. McALLISTER:

Q. This question was put to Mr. Sibley on page 862:

"Q. Would 25,000 affect it? 25,000 kilowatts as a sudden load on Public Service Electric and Gas Company, would that affect the speed of the generators?"

He said he didn't think so, and the next question was "You don't think so," and he said no.

Would you accept that as a proper and correct answer to the question put to the witness?

MR. PAXSON: I object to that as to whether that is a proper answer to the question put to the witness. That is not expert testimony.

EXAMINER SPENCER: I sustain that objection. You can ask him if in his opinion it is true.

BY MR. McALLISTER:

Q. Mr. Bennett, as an electrical engineer, would you say that a load of 25,000 kilowatts imposed on the generators of Public Service Electric and Gas Company would affect the speed of those generators?

MR. PAXSON: I object to it unless he knows of his own knowledge something about the generators of Public Service Electric and Gas Company. He is speaking about specific generators now. That is not a hypothetical question.

BY EXAMINER SPENCER:

Q. Do you know about these generators, Mr. Bennett?

A. I know the reported capacity. I have seen the reported capacities of them and I have heard the testimony as to the capacity of the machines.

MR. PAXSON: I still object. All he knows is hearsay as to capacity and other characteristics, as he has stated.

EXAMINER SPENCER: You may answer the question upon your knowledge of the generators from official reports in this Commission. The objection to that extent is overruled.

MR. PAXSON: Exception.

THE WITNESS: If a 25,000 kilowatt load is suddenly imposed upon the system of Public Service Electric and Gas Company at the Mechanic Street Substation it will affect the generators of Public Service Electric and Gas Company.

BY MR. McALLISTER:

Q. Regardless of the capacity of those generators?

A. Regardless of the capacity of those generators.

MR. PAXSON: What was that?

THE WITNESS: Regardless of the capacity of those generators, yes.

BY MR. McALLISTER:

Q. If that is not true, Mr. Bennett, then is it not a fact that a load of 25,000 kilowatts could be imposed upon the System of Public Service Electric and Gas Company without any additional increase in the cost of generation on the system of Public Service Electric and Gas Company?

MR. PAXSON: Same objection.

EXAMINER SPENCER: Overruled and exception noted. Proceed.

A. The testimony that was given in connection with this was to the effect that a 25,000 kilowatt load suddenly imposed upon the Public Service Electric and Gas Company would be so minute that it would not affect the speed of the System sufficiently to cause any governor to operate. If so, if no governor operated, then no more steam would

be admitted to the generators anywhere on the System, therefore no more coal would be burned and the System would be able to pick up this load of the Staten Island Edison Company, which was testified to as being about 19,000 kilowatts, without any additional cost whatever. Such a conclusion is of course ridiculous and it is very evident, therefore, that the governors must operate to pick up this additional load, that quite regardless of any theoretical considerations which I outlined in answer to the previous question.

BY MR. McALLISTER:

Q. Mr. Sibley testified in explaining chart No. 8 that emergency energy required by Staten Island Edison Corporation resulted in increased generation on the System of Public Service Electric and Gas Company.

From a consideration of the chart, Mr. Bennett, would you say that any such conclusion can be reached?

A. I fail to find in the chart any evidence of that.

Q. Mr. Bennett, have you reconstructed a part of Exhibit No. 8 to place the two charts which are shown thereon on the same scale?

A. A draftsman reconstructed a part of this chart showing the flow of energy from Jersey Central Power and Light Company to Public Service Electric and Gas Company so that it would be represented to the same scale as the flow of energy from Public Service Electric and Gas Company to the Staten Island Edison Corporation so as to facilitate the comparison of these flows of energy.

Q. Will you please state upon what scale the flow of energy from Jersey Central Power and Light Company to Public Service Electric and Gas Company is shown in blue on that chart as introduced by the Respondent?

MR. PAXSON: Pardon me, but have you one for us to see while he is testifying?

MR. McALLISTER: I have not. This one here

was prepared under extreme difficulties, and I wanted to allow him to use it before I introduced it.

MR. PAXSON: But we cannot understand his testimony when he is doing that.

MR. McALLISTER: It will be agreeable to me for you to step up here next to the witness and watch the chart while he is testifying. All that the witness has done, as I understand it, has been to increase the length of the line.

EXAMINER SPENCER: Gentlemen, at this time, we will take a five minute recess.

(Thereupon, a short recess was taken, after which the following occurred.)

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

BY MR. McALLISTER:

Q. Now, what is your answer?

A. Will you read the question, please.

(The question was then read by the Reporter.)

THE WITNESS: The flow of energy from the Jersey Central Power and Light Company to Public Service Electric and Gas Company as it appeared on the chart as introduced by Respondent is 30,000 kilowatts for full scale reading as contrasted with 10,000 kilowatts for full scale reading on the similar sized chart showing flow of energy from Public Service Electric and Gas Company to Staten Island Edison Corporation. The scale of the flow of energy from Jersey Central Power and Light Company to Public Service Electric and Gas Company has been changed to correspond with the chart used for Staten Island Edison Corporation by making the ordinates three times as high or three times as great.

BY MR. McALLISTER:

Q. Is that tantamount to placing the scale showing the flow of energy from Jersey Central Power and Light Company to Public Service Electric and Gas Company upon the same basic scale as that scale which records the flow of energy from Public Service Electric and Gas Company to Staten Island Edison Corporation?

MR. PAXSON: Just a minute, please. I object. An inspection of this chart shows that he has not put all of this flow from the Public Service Electric and Gas Company to Jersey Central Power and Light Company on an increased scale. He has only put a very small part of it. If this is to be offered in evidence I want it done in toto to show the general trend. That was the purpose of this chart. He has taken only a small portion of it. I do not think there should be any general testimony based upon a very limited section of this chart.

MR. McALLISTER: Mr. Examiner, if I may be permitted to question the witness I will show just what is on the chart. The question I asked was related solely to the scale.

MR. PAXSON: He said he had raised the scale, but he has not. He has only done it in part.

MR. McALLISTER: Let the record speak for itself.

EXAMINER SPENCER: What answer did you make to the question as to whether or not you had raised the scale?

THE WITNESS: In the initial statement I specified a portion of the chart. In answering the last question I responded only in general with regard to the scales, but in the original testimony it was specified that only a part had been expanded.

EXAMINER SPENCER: Does the map which you have now differ from Respondent's Exhibit No. 8 in any respect other than the scale on which the lower map is made?

THE WITNESS: It does not.

MR. McALLISTER: Mr. Examiner, if I may be permitted to have him explain this chart in an orderly manner, all of that will appear clearly before the witness expresses an opinion.

EXAMINER SPENCER: There is an objection, apparently, and I have to rule upon it before you can go on at all.

Now, Mr. Bennett, you stated that the purpose of that map was to facilitate the reading of it, did you not?

A. To facilitate the comparison of the relative magnitudes of flow so as to avoid any possible wrong impression that might be drawn between the flow of energy due to the difference in scales. It is purely to facilitate the comparison. And the only reason why only a portion of this was expanded was because the draftsman did not have time to expand the whole chart. There was no object of putting over any wrong impression by expanding only the portion under discussion of the emergency flow of energy.

MR. PAXSON: I am not saying that there was any object, but I am afraid that it will have that effect if it is not done completely. It is only a partial job.

And he has been asked and has already testified in general as to raising the entire scale. But it appears he has not done so. Of course, he did not mean that, and it is not so implied.

EXAMINER SPENCER: Your objection is with reference to the whole map at this time?

MR. PAXSON: At this time, yes. If he is going to raise the scale, let him raise it.

EXAMINER SPENCER: Mr. McAllister, confine your question to the part that he has changed.

MR. McALLISTER: I have not gone that far yet, Mr. Examiner. I am going to offer and identify what the exhibit is, if you will permit me to do so.

EXAMINER SPENCER: He has testified to what the exhibit is.

MR. McALLISTER: No, Mr. Examiner, he has not. The record does not so show.

EXAMINER SPENCER: The record shows he has increased that scale for the purpose of facilitating the comparison.

MR. McALLISTER: At any rate, I am not satisfied with the record as it stands and I would like to show on the record specifically and clearly what was done.

MR. PAXSON: I think he is entitled to do that.

EXAMINER SPENCER: You may proceed.

BY MR. McALLISTER:

Q. Mr. Bennett, did you reconstruct this entire chart to show thereon what was shown by Respondent on their exhibit No. 8?

A. No. The chart has been reconstructed to a new scale only—

Q. Mr. Bennett, I am referring—

MR. PAXSON: Can't you let him finish the answer?

MR. McALLISTER: Just a moment. I don't see any use of going into that when it does not answer my question.

BY MR. McALLISTER:

Q. What I am referring to is this, Mr Bennett. Do you have before you the exact chart which was presented in this proceeding by Respondent as Exhibit No. 8 as the base upon which you superimposed in green, as shown thereon, a certain change in scale to relate that part of the chart as showing the flow of energy from Jersey Central Power and Light Company to Public Service Electric and Gas Company upon the same scale as is shown above, without in any way attempting to change the chart as submitted by Respondent?

A. Yes, sir.

MR. PAXSON: Now, just a minute, please. That gets us involved, and so involved that I don't know what he is answering "yes" to. There are a half dozen different things in it. We have to go slowly. I am not an engineer, although I know this man is, but I know Mr. McAllister is not an engineer. That is why these questions are very involved. And I want to hear them.

EXAMINER SPENCER: Well, state what you have before you.

MR. PAXSON: But we have an answer "yes" to something without knowing what it was, before I had a chance to object or ask for an explanation.

EXAMINER SPENCER: Go ahead, Mr. Bennett, and explain.

THE WITNESS: Do you want me to explain what the chart is?

EXAMINER SPENCER: Yes.

THE WITNESS: This chart is the copy which was furnished to Commission's counsel of the exhibit designated as Exhibit No. 8 of the Respondent.

On this chart the draftsman multiplied each ordinate within the range which had been expanded by the factor three to bring it to the same scale as the upper chart. So an ordinate of a given length on this chart corresponds exactly to an ordinate of the same length on the other chart. It is simply for the purpose of facilitating the comparison.

MR. PAXSON: When you say that, that is my objection. Will you state what it is? You say "general comparison".

THE WITNESS: There is no intention to make it general.

EXAMINER SPENCER: For the record, Mr. Bennett, what part is it?

THE WITNESS: That is in the section from 2:20 a. m. on the morning of August 13, 1936 to 4:00 o'clock a. m. on the same date.

EXAMINER SPENCER: You may proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. As you have shown for that period, Mr. Bennett, would a flow of energy from Jersey Central Power and Light Company to Public Service Electric and Gas Company of 10,000 kilowatts be represented by the same length of ordinate as the flow of a like sum would be shown on the upper part of the chart indicating a flow of energy from Public Service Electric and Gas Company to Staten Island Edison Corporation?

A. That is right.

Q. If you take into consideration that part of the chart as now you have reconstructed it?

A. That is right.

Q. Whereas as it was put in originally by the Respondent the flow of 10,000 kilowatts from Jersey Central

Power and Light Company to Public Service Electric and Gas Company would be represented by an ordinate one-third the length of the ordinate showing the flow of a like quantity of energy from the Public Service Electric and Gas Company to Staten Island Edison Corporation? Is that correct?

A. That is correct.

Q. So that what you have done has been to put the lines upon the same relative basis showing the flow of energy between the points between which it is shown to be flowing by the chart as introduced by Respondent?

A. That is correct; for the portion of the chart that has been expanded.

Q. In other words, the irregular lines indicating the flow of energy from Jersey Central Power and Light Company to Public Service Electric and Gas Company on that portion which you have reconstructed became more jagged, so to speak, as they appear to the normal eye than they would be on the modified scale as introduced by the Respondent?

A. Our attempt was to present the graph of the flow of energy from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company in the same form in which it would have appeared if it had been recorded on a meter of the same type and with the same current transformers as were used on the circuit from the Public Service Electric and Gas Company to the Staten Island Edison Corporation, and the effect of it is, as you have indicated, to make the curve apparently more jagged by increasing the height of the peaks.

Q. In other words, Mr. Bennett, as you reconstruct the chart the same scale, the same measuring device would be utilized in reading the part that is reconstructed?

A. That is correct.

Q. Instead of using a three to one scale on the lower part introduced by Respondent and a one to one scale on the part showing the movement of energy or the flow of

energy from the Public Service Electric and Gas Company to the Staten Island Edison Corporation?

A. As presented by Respondent one would have to use a different scale in measuring magnitudes of power flow on one curve as compared with what would be used on the other curve.

Q. And in looking at the lower part representing the flow of energy from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company you must mathematically in your mind multiply the distance from the base line to the curve by three before you can make a comparison with the distance from the base line showing the flow of energy from the Public Service Electric and Gas Company to Staten Island Edison Corporation to the line showing the flow at a particular time? Is that true?

A. For visual comparison one must in his mind multiply the scale on the Jersey Central Power and Light Company to the Public Service Electric and Gas Company by three, or four a numerical comparison they must read the amounts off from scales of different sizes in the exhibit as originally presented.

EXAMINER SPENCER: Have you any other question, Mr. McAllister?

BY MR. McALLISTER:

Q. Mr. Bennett, Mr. Sibley said Exhibit No. 8 demonstrates the Staten Island Edison Corporation load had no effect on Jersey Central Power and Light Company's supplying Mechanic Street. Assuming that that is true, does the chart in any way show that Jersey Central Power and Light Company did not supply some of the energy transmitted to the Staten Island Edison Corporation?

MR. PAXSON: May I hear that question again?

EXAMINER SPENCER: Will the Reporter read the question, please.

(The question was then read by the Reporter.)

BY MR. McALLISTER:

Q. What is your answer?

A. The chart is simply a record of power flow over the circuits under discussion, and it does not show the source of energy flowing to the Staten Island Edison Corporation.

Q. Mr. Bennett, will you please look at Exhibit No. 8?

A. Yes; I have it before me.

Q. At 1:20 to 1:30 a. m., as shown on the chart received in evidence as Respondent's Exhibit No. 8 I believe it shows an average flow of electric energy from the Public Service Electric and Gas Company to the Jersey Central Power and Light Company of about 10,000 kilowatts, doesn't it?

A. The average flow during this period would be approximately 10,000 kilowatts.

MR. PAXSON: What time was that?

MR. McALLISTER: It was from 1:20 to 1:30 a. m.

MR. PAXSON: To 1:30 a. m.?

MR. McALLISTER: From 1:20 to 1:30 a. m.

MR. PAXSON: Thank you.

BY MR. McALLISTER:

Q. During that same time, Mr. Bennett, there is a flow of electric energy from the Public Service Electric and Gas Company to the Staten Island Edison Corporation of approximately what amount?

A. I would estimate the amount during that period as being approximately 800 kilowatts.

Q. If at that time you assume that the load on the Mechanic Street substation in addition to the load to the

Staten Island Edison Corporation was 5,000 kilowatts, including the requirements of the General Cable Company, what would happen to the balance of the energy coming from the Public Service Electric and Gas Company from the Jersey Central Power and Light Company at the Mechanic Street substation?

MR. PAXSON: That is objected to unless this witness states that he knows all of the various circuits into and out of that bus bar at Mechanic Street.

EXAMINER SPENCER: The witness may answer the question if he can.

MR. PAXSON: But he should lay a basis for asking a general question. He has not qualified this witness to show that he knows anything about that bus bar. He has given a load to the Cable Company and a local load. If that is all, one conclusion might be reached; if there is something else, another conclusion might be reached.

EXAMINER SPENCER: You may proceed, Mr. Bennett.

THE WITNESS: At the time to which the question relates the power being supplied from the Jersey Central Power and Light Company to the Mechanic Street substation as shown by the graph is approximately 10,000 kilowatts. The power being supplied at Mechanic Street station to Staten Island Edison Corporation was approximately 800 kilowatts. If we assume that 5,000 kilowatts is going out on local circuits from the Mechanic Street station the remainder of the power would have to flow to the system of the Public Electric and Gas Company since there are no additional circuits from the substation to other companies.

BY MR. McALLISTER:

Q. In other words, the difference between 5800 and 10,000 would flow out of and away from the Mechanic Street substation over other available circuits to the system of the Public Service Electric and Gas Company? Is that the force of your answer, Mr. Bennett?

A. Under the stated conditions it would flow to the system of the Public Service Electric and Gas Company.

Q. Out of and away from Mechanic Street?

A. Yes; out of and away from the Mechanic Street substation.

Q. Now, Mr. Bennett, assuming the same condition as existed during the period of time from 2:35 up to 2:55, I believe that shows that approximately 8400 kilowatts of electric energy was flowing from the Public Service Electric and Gas Company to the Staten Island Edison Corporation, and at this same time if we assume that the local load was 5,000 kilowatts, what additional amount of energy would be required from the bus of the Mechanic Street substation to supply the requirements at that point in addition to the energy coming from the Jersey Central Power and Light Company as shown on the chart?

MR. PAXSON: Just a minute, please. This is a hypothetical question. The witness is using one chart and Mr. McAllister is using another. If it is not material, I don't care, but I just wanted to bring that out. One is on one scale at the time he mentioned and one is on the other.

MR. McALLISTER: No; we are merely referring to your Exhibit No. 8, Mr. Paxson. He is using the same chart that you submitted and that I am using. You gave us two copies.

MR. PAXSON: I thought he was using the one that had the large scale when you mentioned that time.

EXAMINER SPENCER: Counsel had better give him the other one.

MR. McALLISTER: He is referring only to that part of Exhibit No. 8. I am not referring to the other.

MR. PAXSON: I do not want to be captious. If he is asking a hypothetical question, I don't know and I don't care. I am not an engineer.

THE WITNESS: Will you repeat the question, please?

EXAMINER SPENCER: Will the Reporter read the question, please?

(The question was then read by the Reporter.)

BY MR. McALLISTER:

Q. In your answer, Mr. Bennett, I note that there is a peak on Exhibit No. 8 just immediately following the time of 2:35 of approximately a minute or a little more. Do you notice that, Mr. Bennett?

A. Yes, sir.

Q. In order to obviate the necessity of striking an average over the period that I gave you before will you please confine your answer to just that short period as indicated by that peak just after 2:35 as shown on the chart, which shows, I believe, a flow of energy from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company of about or slightly in excess of 10,000 kilowatts?

A. Then do I understand the inquiry and the assumptions are made for the period of the peak, which I might read as being approximately 2:36 to 2:37?

Q. That is correct. Please limit your answer to just that period of time there.

A. At that time the amount of power being supplied

from the Public Service Electric and Gas Company to the Mechanic Street Substation of the Jersey Central Power and Light Company was slightly in excess of 10,000 kilowatts. The power taken by the Staten Island Edison Corporation from the Mechanic Street substation was approximately 8,400 kilowatts. If the local load amounted to 5,000 kilowatts that would leave a deficit of approximately 3,400 kilowatts, or a little less, out of Mechanic Street substation which would have to be supplied from the Public Service Electric and Gas Company plants.

Q. When that quantity of energy would be flowing in from another source would there be any opportunity for any part of the energy coming from Jersey Central Power and Light Company to flow out over the lines that were supplying the additional load required at the Mechanic Street substation?

A. That quantity of energy would have to be supplied from the system of the Jersey Central Power and Light Company and, therefore, there would be no flow of power from the Mechanic Street substation to the system of the Jersey Central Power and Light Company.

Q. Would it be reasonable under those circumstances to say that from necessity the energy from the Jersey Central Power and Light Company must flow from the Mechanic Street substation to the Staten Island Edison Corporation to supply the load of 8,400 kilowatts which the Staten Island Edison Corporation was taking from the Mechanic Street substation at that time?

MR. PAXSON: What do you mean by "reasonable". Do you mean probabilities? Do you mean reasonable probabilities?

MR. McALLISTER: Reasonable to the mind of an engineer.

THE WITNESS: Some of the energy from the Jersey Central Power and Light Company at that

time necessarily went to the Staten Island Edison Corporation.

MR. McALLISTER: Mr. Examiner, may I ask the Reporter to go back to Mr. Bennett's first answer about two questions back and see if he did not reverse the names of the companies, particularly with reference to the flow of energy from the Jersey Central Power and Light Company?

Will the Reporter read that? And will Mr. Bennett watch it and see if it is correctly stated or if he just misstated it and reversed the positions of those companies?

(The following was then read by the Reporter:)

"A. At that time the amount of power being supplied from the Public Service Electric and Gas Company to the Mechanic Street substation of the Jersey Central Power and Light Company was slightly in excess of 10,000 kilowatts."

BY MR. McALLISTER:

Q. Is that correct, Mr. Bennett?

A. I misstated myself there. That was energy at that time between 2:36 and 2:37. Energy in the amount of slightly more than 10,000 kilowatts was being supplied from the Jersey Central Power and Light Company to the Public Service and Gas Company.

If I said the contrary there, it was unintentional and a misstatement.

MR. McALLISTER: Now, will the Reporter read the complete answer of the witness so he can follow along and see if that happened again in the course of his answer?

"A. At that time the amount of power being supplied from the Public Service Electric and Gas Company to the Mechanic Street substation of the

Jersey Central Power and Light Company was slightly in excess of 10,000 kilowatts."

THE WITNESS: Will the Reporter read the answer again, please? It is rather involved.

(The answer of the witness was again read by the Reporter).

THE WITNESS: I believe that is correct.

EXAMINER SPENCER: You may proceed.

MR. PAXSON: May I interrupt, Mr. Examiner? Can anyone tell me how long the Secretary's Office will be open? I have some papers here that I must file with him?

EXAMINER SPENCER: It is open until 4:30 at least.

MR. PAXSON: I have some papers that I have to file with him.

EXAMINER SPENCER: If you wish, we will take a recess at this time.

MR. PAXSON: Then, suppose we do that. I have these papers which I would like to file.

EXAMINER SPENCER: Will ten minutes be sufficient?

MR. PAXSON: I think so.

EXAMINER SPENCER: Then, we will recess for ten minutes.

(Thereupon a short recess was taken, after which the following occurred:)

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

BY MR. McALLISTER:

Q. Mr. Bennett, where the chart shows like circum-

stances with respect to the flow of energy, and if you were to assume the same matters which you did assume in connection with your prior answer, would your answer be the same with respect to those situations insofar as they are shown on exhibit No. 8?

A. Yes, sir.

Q. Now, Mr. Bennett, on page 858 of the transcript Mr. Sibley, in answer to this question which I put to him:

"You would have to take into consideration in that calculation, would you not, the generator at South Amboy which is on the line there?"

Mr. Sibley in answer to that question said:

"Well, we will put that in. I don't know how big that was, but you can put 50 more in so that it would bring it back to 300,000, which I assumed. Now, this draft of approximately 8,400 divided by 300,000 is an increase in load of 2.8 per cent. Now I don't believe an increase in load of 2.8 per cent on any given number of turbines would increase the output of each turbine that 2.8 per cent. That is what I based my reply on."

Now, Mr. Bennett, with respect to that response of Mr. Sibley will you state whether or not in your opinion as an engineer the conclusion expressed by Mr. Sibley is correct?

MR. PAXSON: Just a minute, please. This witness has not qualified as a mechanical engineer, and Mr. McAllister says "as an engineer". Will you please specify what kind of an engineer?

EXAMINER SPENCER: I did not hear the question. I will ask the reporter to read it.

(The question was then read by the reporter.)

EXAMINER SPENCER: The witness may answer.

MR. PAXSON: He is asking him a question as a mechanical engineer, and he is trying to pass upon the accuracy of an answer given by Mr. Sibley. It is true Mr. Sibley said that, but I don't think he is qualified to answer whether it is accurate or not unless he qualifies as a mechanical engineer. He can specify what he means. But that presupposes he would have to have an engineering knowledge upon which to base his answer.

MR. McALLISTER: May I be heard on that briefly, Mr. Examiner.

EXAMINER SPENCER: Yes, Mr. McAllister.

MR. McALLISTER: I want to call attention to the fact that Mr. Sibley, in answer to the question, said specifically at various times in the record that he was not a mechanical engineer. So I assume it does not call for an answer from a mechanical engineer.

EXAMINER SPENCER: The witness may answer the question.

MR. PAXSON: An exception, please.

EXAMINER SPENCER: The exception is noted.

THE WITNESS: Under the condition specified of a 2.8 per cent increase in load on a large system consisting of various power plants in various locations, some near and some remote, which is the condition under discussion, a 2.8 per cent increase in load on the system, if that increase in load is applied at a particular spot as it was in this case, would not cause an increase of 2.8 per cent on every generator on the system. It would cause an increase of load of much more than 2.8 per cent on the generators that are electrically near to the point at which the load is applied and it would produce an instantaneous increase

in load on the remote generators of much less than this amount.

BY MR. McALLISTER:

Q. Mr. Bennett, Mr. Sibley's testimony was that the generator or generators in the South Amboy plant of the Jersey Central Power and Light Company, by reason of the interconnection and the fact that they were delivering energy to the bus at Mechanic Street substation at that time, were on the line insofar as Mechanic Street substation was concerned. Now, Mr. Bennett, as an electrical engineer, with a load of the size referred to by Mr. Sibley, 840 kilowatts, would it have any effect upon the turbo generators in the South Amboy plant which, as the record shows, were distant from the Mechanic Street substation about 2.13 miles.

MR. PAXSON: That is objected to upon the ground this witness has not shown that he has any knowledge of the turbo generators at the South Amboy plant. This is a specific question and not hypothetical, and not expert testimony. If you put a hypothetical question, that is one thing. But this is specific.

EXAMINER SPENCER: Assuming the generators are as they have been described in the record from your recollection of such description and your knowledge of such generators, Mr. Bennett, you may answer the question upon that assumption.

THE WITNESS: As an electrical engineer experienced in the operation of large power systems I know that the addition of the 2.8 per cent load to a large system must be taken care of by some generator or generators on the system and that the instantaneous response to such a load change, or to such an additional load applied to the system, will be heaviest on the machines that are nearest to the point at which

the load is applied and, therefore, there will be a considerable response on the part of the machines in the South Amboy station, regardless of the characteristic, or the electrical and mechanical characteristics of these machines, so long as they are machines of 50,000 kilowatt capacity, so long as they are connected to the point of supply through a heavy electrical circuit.

BY MR. McALLISTER:

Q. And is that conclusion borne out by the chart which was introduced by the respondent as Exhibit No. 8, Mr. Bennett, where at 2:24 there was a sudden load thrown on to the Mechanic Street Substation by the Staten Island Edison Corporation?

A. That conclusion is borne out by the indication of the chart at the point specified.

Q. And how does the chart bear out that conclusion, Mr. Bennett?

A. At the same point in time at which the 10,000 kilowatt load is applied to the Mechanic Street substation from the Staten Island Edison System there is an increase in power supplied to the Mechanic Street station, an abrupt increase supplied to the Mechanic Street Substation of approximately 2,500 kilowatts.

Q. As indicated on the chart by what?

A. As indicated on the chart by the small jog that was made with the needle at what appears to be the same time as the heavy load was applied from the Staten Island Edison Corporation.

Q. Now, Mr. Bennett, how do you account for the fact that the heavy load on Mechanic Street substation represented by the block shown in orange did not continuously during that period impose a heavy load on the flow of electric energy from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company?

MR. PAXSON: That is objected to. How does he know, Mr. Examiner. If it is shown by the chart, that is all right; but if he is speculating, I object. I know that he is qualified to read the chart, but I don't want any speculation as to how he thinks it is accounted for.

THE WITNESS: The conclusions I will state, if I answer the question, will be drawn from the chart.

MR. PAXSON: Then, I have no objection to the question.

THE WITNESS: Will you repeat the question, please?

EXAMINER SPENCER: Will the reporter now read the question, please?

(The question was then read by the reporter.)

THE WITNESS: Throughout the entire length of this chart showing the flow of power from the Public Service Electric and Gas Company to the Jersey Central Light and Power Company,—

BY MR. McALLISTER:

Q. Isn't it just the reverse? You are reading below there again.

A. I beg your pardon.

Q. Now, state it over?

A. Throughout the entire length of the chart showing the flow of energy from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company there are variations, sometimes abrupt, sometimes lasting for a considerable time, which indicate that other influences were affecting this flow of power besides the demand of Staten Island Edison Corporation on the Mechanic Street substation.

It has been shown in the testimony that the flow of power across this interconnection is controlled by the op-

erators who regulate their governors as well as by the load imposed upon the system. Nothing has been introduced in the evidence to show—

MR. PAXSON: I object to that. I don't think this witness is competent to state what is to be deduced from the testimony, Mr. Examiner.

EXAMINER SPENCER: Yes. You may state what the evidence is, Mr. Bennett.

MR. McALLISTER: As a matter of fact, Mr. Examiner, the witness has been present during the course of this hearing and he may continue to answer the question that he has no recollection of hearing any evidence introduced.

EXAMINER SPENCER: He can do that.

MR. McALLISTER: I will say—

MR. PAXSON: If the Commission please, I asked the question what he is going to draw his conclusion from, and he said from the chart. The hearing has taken nine days, and no mind can retain all of this testimony and the implications flowing from nine day's testimony.

EXAMINER SPENCER: I think perhaps Mr. Bennett meant to say that assuming these things were not shown by his recollection of the testimony. That is the purport of what he has testified to, I assume.

MR. McALLISTER: I think that is correct.

EXAMINER SPENCER: But confine this to the actual facts.

THE WITNESS: Now, may I ask the Reporter to read the part of my answer I started?

(The following was then read by the reporter:)

"Throughout the entire length of the chart show-

ing the flow of energy from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company there are variations, sometimes abrupt, sometimes lasting for a considerable time, which indicate that other influences were affecting this flow of power besides the demand of Staten Island Edison Corporation on the Mechanic Street substation.

"It has been shown in the testimony that the flow of power across this interconnection is controlled by the operators who regulate their governors as well as by the load imposed upon the system. Nothing has been introduced in the evidence to show—"

THE WITNESS: I would like to have that portion stricken where I started to say "nothing has been introduced in the evidence to show—"

EXAMINER SPENCER: Yes; that may be stricken.

THE WITNESS: If these other influences which have been testified to continue to operate during this interval—

MR. PAXSON: I object. He said "which have been testified to".

EXAMINER SPENCER: Just state what the influences are, Mr. Bennett.

THE WITNESS: These other influences are load changes on the Public Service Electric and Gas Company and the manipulation of governors by the operator is capable of marking completely any load change which may be imposed upon the substation by power demands made on the Mechanic Street substation by the Staten Island.

BY MR. McALLISTER:

Q. Mr. Bennett, from your knowledge of plant oper-

ation and the manner in which electro turbo alternators operate—

MR. PAXSON: Electro turbo what?

MR. McALLISTER: Elecfro turbo alternators.

MR. PAXSON: Turbo alternators?

MR. McALLISTER: Yes.

MR. PAXSON: But you see, Mr. McAllister, when you look the other way and then turn and get behind this pillar which is between us, I just can't hear you. I don't like to interrupt you, but I do want to hear the question.

MR. McALLISTER: Will the Reporter please read the question as far as it has gone?

(The question was then read by the Reporter).

BY MR. McALLISTER:

Q. From your knowledge of plant operation and the manner in which electro turbo alternators operate, will you state whether or not the station operator can control the quantity of electric energy from one system to another, except insofar as such flow of energy between such systems is affected by a sudden load which is beyond his control?

A. Absolutely. That is one of the important duties of the operator.

Q. In other words, the operators in the generating plants of the Jersey Central Power and Light Company, including the operation of the South Amboy plant, could have so manipulated the turbo generators in those plants so that the flow of electric energy from 12:00 o'clock midnight to 5:00 a. m., as shown on Exhibit 8, would have continued and gradually increased throughout that entire period, if they had so elected?

MR. PAXSON: Just a moment, please. I have no objection to the hypothetical question. I object to

any application of this general theory to the existing stations, because this witness is not qualified to speak as to those.

EXAMINER SPENCER: The Examiner is of the opinion that the witness will have to testify from facts that he has obtained from records. If he has those facts and feels that he can answer the question, he may do so.

Otherwise I was going to say that these same facts can be brought out in a hypothetical question. But I recognize the fact, Mr. Paxson, that in order to do that Mr. McAllister would have to read the facts and then ask the hypothetical question based upon that. That would consume a great deal of time.

I don't think that question is correct, Mr. McAllister.

MR. McALLISTER: I am sure that it is absolutely correct. But strike it out and I can put it in another way. Strike out that question.

EXAMINER SPENCER: I think we can save time.

BY MR. McALLISTER:

Q. As a matter of fact, Mr. Bennett, does it make any difference as to the type of generator that the operator has under his control as to whether or not he can step it up and produce energy in sufficient quantity to force it out beyond his system when that system is interconnected with another system?

A. The ability of the operator to control the output of the turbo generator set is a common characteristic of all turbo generators and, therefore, the operator can always control the output of flow from his station to an interconnection that may be near that station.

Q. Would you require any additional facts beyond

those stated in my prior question before you could express a conclusive opinion as to the result which would have obtained under the conditions which I stated?

MR. PAXSON: I object to labelling the opinion as conclusive. He must express his own opinion. But whether it is conclusive or not the Commission will determine.

BY MR. McALLISTER:

Q. Would you be required to have any additional information than that which I gave you, Mr. Bennett, in order to answer the question which is under consideration?

A. In order to answer the question under consideration I would need only to know the existence of turbo generator sets operating in parallel with another system which also has turbo generator sets across an interconnection of ample capacity to carry the loads under consideration. And assuming those facts or knowing those facts—whichever you please—the conclusions follow.

Q. When Mr. Crumley was on the stand he stated the size of the wire between South Amboy and Mechanic Street. I show you a contract between the Public Service Electric and Gas Company and the Jersey Central Power and Light Company which specifies the interconnection between those two lines connecting South Amboy with Mechanic Street substation, which is Intervener's exhibit No. 2, and I will ask you if the information therein contained is sufficient to enable you to answer the question.

MR. PAXSON: I object to the question. I don't think this man is competent to interpret a contract. Why not give him a hypothetical case? Dig out the facts and give him the facts. I don't know what the question means, and I don't know what the answer will mean.

"Can you draw something from the contract which will justify your conclusion?" In effect, that is what

the question is. It is just not specific enough so that anybody can understand it—at least, not my dull mind.

While he is reading that, may we hear the question again, Mr. Examiner? And I would like to have a ruling on it before he answers the question.

EXAMINER SPENCER: Will the reporter read the question, please?

(*The question was then read by the reporter.*)

MR. PAXSON: Now, what is the question that he is going to answer? He is showing him a contract.

EXAMINER SPENCER: Will the witness tell us the information he gets off of it and use that as a basis of assumption?

MR. PAXSON: May I know what the question is before he answers it?

EXAMINER SPENCER: Yes.

MR. PAXSON: This does not cover it.

EXAMINER SPENCER: He has not said yet whether he can get enough facts from that and assume that they are true. But let's see what he says about that.

THE WITNESS: If the interconnection between the South Amboy Station of the Jersey Central Power and Light Company and the Mechanic Street station of the Public Service Electric and Gas Company is put up substantially in accordance with the provisions of this contract—

MR. PAXSON: What provisions? Be specific now. We can't draw conclusions like that.

EXAMINER SPENCER: If they are put up how?

THE WITNESS: If the interconnection has been erected by the erection of two 3-phase transmission circuits as specified, transformers as specified, oil circuit breakers as specified, then that is evidence sufficient for me as an engineer experienced in the operation of electric utilities to say that the interconnection is of ample capacity to handle the amount of power that is concerned and, therefore, to make certain as to whether or not the operator in the South Amboy station is able to control the flow of power across this interconnection.

MR. PAXSON: Won't you be satisfied with that answer, Mr. McAllister?

EXAMINER SPENCER: Proceed, Mr. McAllister.

BY MR. McALLISTER:

Q. Will you proceed to answer the question as put, Mr. Bennett, expressing your opinion as to whether or not the operator of the turbo generators at the South Amboy plant of the Jersey Central Power and Light Company could have so controlled the flow of energy for the period shown on respondent's exhibit No. 8 so that from 12:00 o'clock midnight until 5:00 a. m. the quantity of energy flowing from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company would have gradually increased over that period instead of having gradually and irregularly decreased, as shown on respondent's exhibit No. 8?

MR. PAXSON: Pardon me, but can you make any sense out of that question? I can't. That is because my mind is dull on these things. I am not criticizing you, Mr. McAllister. Don't get me wrong. But it is so involved that I want to take it slowly. We might be worse off if I tried it.

EXAMINER SPENCER: Will the reporter read the question, please?

(The question was then read by the reporter.)

EXAMINER SPENCER: You may answer the question now, Mr. Bennett.

THE WITNESS: If the interconnection facilities between the South Amboy Plant of the Jersey Central Power and Light Company and the Mechanic Street station of the Public Service Electric and Gas Company is substantially in the form shown in this contract, the operator in the South Amboy Station could have controlled the flow of energy across this interconnection to make it increase or decrease, as desired, during the period from 12:00 o'clock midnight to 5:00 a. m. on August 13, 1936, as specified in respondent's exhibit No. 8.

BY MR. McALLISTER:

Q. Then you would say from your examination of respondent's exhibit No. 8 that that part of the chart in blue representing the flow of energy from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company represented the control of energy from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company by the operator of the generating plants on that line except for those various load swings which occur and which are momentarily beyond the control of the operator?

A. That is correct.

MR. McALLISTER: You may cross-examine.

EXAMINER SPENCER: You may proceed.

MR. PAXSON: If the Commission please, I move that we adjourn until Monday morning. It is now ten minutes to five. I have an important engage-

ment in New York tonight, and also tomorrow morning.

No one anticipated that this hearing would continue this long a time. This is Friday evening, and we would like to be able to attend to some of our work. Furthermore, Mr. Examiner, if I do that I will probably be able to cross examine this witness much more expeditiously; and I may have no questions to ask.

EXAMINER SPENCER: All right, then; we will adjourn until Monday morning.

MR. McALLISTER: Mr. Examiner, I think we might proceed and finish up as much of this case as we possibly can at this time.

MR. PAXSON: That is the same question that was raised last Friday.

EXAMINER SPENCER: Yes. We will adjourn at this time, gentlemen, until ten o'clock Monday morning.

(Whereupon, at 4:50 o'clock p. m., an adjournment was taken until Monday, October 10, 1938, at 10:00 o'clock a. m.)

Washington, D. C.,
Monday, October 10, 1938.

The hearing in the above-entitled matter was resumed, pursuant to adjournment, in Room 1201, Hurley-Wright Building, 1800 Pennsylvania Avenue, N. W., Washington, D. C., at 10:00 o'clock a. m.

Before:
Carroll B. Spencer, Trial Examiner.

Appearances:
As heretofore noted.

PROCEEDINGS

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

CLAUDIUS E. BENNETT

resumed the witness stand and, having been previously sworn, testified on behalf of the Federal Power Commission as follows:

Direct Examination (resumed)

THE WITNESS: Mr. Examiner, before the cross-examination is started I would like to state that in my qualifications I omitted saying that I am a registered professional engineer, State of New York, and a Fellow of the American Institute of Electrical Engineer. One is my license to practice and the other is, in effect, the professional committee's opinion of my standing.

MR. McALLISTER: Mr. Examiner, there are a few errors in the transcript in connection with the testimony of Mr. Bennett, which I think might well be straightened out before cross-examination, so there will be no question about it.

EXAMINER SPENCER: All right.

MR. McALLISTER: On page 990, line 16, the words "design of minor construction" should be "design and minor construction." It is not of great importance, but, at the same time, it does change the sense somewhat.

Have you any objection to that change?

MR. PAXSON: Not if Mr. Bennett says that is what he said.

THE WITNESS: That is what I intended to say.

MR. McALLISTER: On page 992, line 12, the

name "Ebro Light and Power Company" should read "Ebro Irrigation and Power Company."

Is that correct, Mr. Bennett?

THE WITNESS: That is correct?

MR. McALLISTER: On page 993, line 22, it reads "including a course in devising transmission theory and a graduate course."

It should read "including a course in advanced transmission theory," shouldn't it, Mr. Bennett?

THE WITNESS: That is correct.

MR. McALLISTER: Instead of "devising" it should be "advanced"?

THE WITNESS: That is correct.

MR. McALLISTER: That is four lines from the bottom on page 993.

The next is on page 1000. It reads "a sudden rise in voltage." It should read "a sudden rise in load taken."

THE WITNESS: That is correct.

MR. McALLISTER: On page 1007, line 22, "compilation" should be changed to "computation."

THE WITNESS: That is correct.

MR. McALLISTER: It is the second word on the 4th line from the bottom which should be "computation" instead of "compilation."

The next to the last word in that same line should be "transient" instead of "tranchant."

On page 1010, line 16, the word "flowing" appears. It should be "slowing."

THE WITNESS: That is correct.

MR. McALLISTER: On page 1029, line 12, it

reads "For visual comparison one month in his mind multiply the scale," but it should read "For visual comparison one must in his mind multiply the scale."

THE WITNESS: That is correct.

MR. McALLISTER: On page 1035, lines 1 and 2, the terms "Public Service Electric and Gas Company" and "Jersey Central Power and Light Company" have been interchanged, it appears.

Now, Mr. Bennett, I will read that to you. I am going to read the correction on page 1035, but I am beginning to read on page 1035, the beginning of your answer being on page 1034:

"A. At that time the amount of power being supplied from the Public Service Electric and Gas Company to the Mechanic Street substation of the Jersey Central Power and Light Company was slightly in excess of 10,000 kilowatts." But it should read:

"A. At that time the amount of power being supplied from Jersey Central Power and Light Company to the Mechanic substation of Public Service Electric and Gas Company."

Isn't that correct?

THE WITNESS: That is correct.

MR. McALLISTER: I just thought it would be better to correct those matters before cross-examination so that there will be no question about it.

EXAMINER SPENCER: Is that all, Mr. McAllister?

MR. McALLISTER: That is all I have now.

EXAMINER SPENCER: Before you begin your cross-examination, Mr. Paxson, the witness wishes to supplement his testimony as to his qualifications. He

just made a statement to me which was put into the record, so I shall ask the Reporter to read it:

The following was then read by the Reporter:

"THE WITNESS: Mr. Examiner, before the cross-examination is started I would like to state that in my qualifications I omitted saying that I am a registered professional engineer, State of New York, and a Fellow of the American Institute of Electrical Engineer. One is my license to practice and the other is, in effect, the professional committee's opinion of my standing."

BY MR. McALLISTER:

Q. Did you mean as an electrical engineer?

A. Yes.

BY MR. PAXSON:

Q. When did you become a registered professional engineer?

A. I beg your pardon.

Q. When were you licensed to become a registered professional engineer in New York?

A. I will have to answer from memory on that. I think it was in 1934, but I will not swear to the date.

Q. Well, just approximately. It is not important. You are a registered professional engineer?

A. Yes.

EXAMINER SPENCER: You may proceed with your cross-examination, Mr. Paxson.

MR. PAXSON: Mr. Examiner, before we proceed, is the direct case all in? In other words, they introduced here some changed or reconstructed graph for identification, but it has not yet been offered. If it is not going to be offered, or admitted I am not going to cross-examine about it. It is certainly not my exhibit as reconstructed.

EXAMINER SPENCER: Are you prepared to offer that exhibit now, Mr. McAllister?

MR. McALLISTER: At this time, Mr. Examiner, I offer as Commission Counsel's Exhibit No. 20 the chart identified by the witness showing the area indicated on the map between the period of 2:20 a. m., and 4:00 o'clock a. m., in such manner as to set forth the ordinates showing the flow of energy from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company on the same scale as that used in showing on the upper half of the chart the flow of energy from the Public Service Electric and Gas Company to the Staten Island Edison Corporation, and I will ask that it be received in evidence. I think the witness has made clear that what was done was to take Exhibit No. 8 as introduced by Respondent and merely superimpose upon that exhibit No. 8 of the Respondent the changed diagram necessary to place that part of the chart which was reconstructed upon a basis whereby direct comparison can be made with the upper part of the chart.

EXAMINER SPENCER: May I have a copy of that exhibit?

MR. McALLISTER: Yes, Mr. Examiner; here is a copy of the exhibit.

EXAMINER SPENCER: Have you any objection, Mr. Paxson?

MR. PAXSON: If the Commission please, I object most strenuously to the admission of this graph, as changed, in the record as any part of the evidence in this case. It shows on its face, and it has been testified to by Mr. Bennett, that this is only a partial change, and I think its inclusion herein would create

an entirely false construction or interpretation of this map.

We have here a graph at the top on one scale and down at the bottom parts on one scale and parts on another. So it makes it absolutely impossible to read it or gather anything of any import from the graph.

If they wish to reconstruct this in its entirety, that is one thing. To offer this as any evidence of anything either they have to do it entirely or not at all.

Therefore, I object to it as not being persuasive or probative of anything. We cannot have a graph which is one scale as to part and one scale as to another part and draw any correct conclusions whatsoever.

MR. McALLISTER: The record shows perfectly clearly, Mr. Examiner, that the only part that we have changed is that part which I stated, from 2:20 a. m. until 4:00 o'clock a. m. And the reason it was not completed in its entirety was that we did not have the time, thinking that it would be necessary to put this thing in and feeling that the case would be closed on Friday. But before we adjourned on Friday the proposition was put to Mr. Paxson by the witness, in which he said, "We will complete the chart over Saturday and put it in on Monday for the whole thing or we will have the thing photostated and get you a copy in New York some time on Saturday. Now, it is impossible to do both things. We will do whichever you want."

And Mr. Paxson said "We would like to have a copy of it tomorrow."

MR. PAXSON: We wanted a copy of the one with the notation that they wanted to appear on it. They stated a few days ago that photostating would

take only about five minutes. I don't think that is any excuse for not reconstructing this thing in toto. I think that is absurd.

EXAMINER SPENCER: Mr. Bennett, are the readings on this map and the one from which it was made the same? In other words, other than extending these lines have any other changes been made?

THE WITNESS: No changes have been made except—

EXAMINER SPENCER: And the readings will be the same on each?

THE WITNESS: No changes have been made except to create a new addition to Respondent's Exhibit No. 8 by putting in a curve in which the ordinates within the part extended are three times as high as the other. But during my testimony the readings which I took were entirely from the curves presented by Respondent, the other being simply for graphic presentation.

MR. PAXSON: We have here this legend "Vertical scale of curve below has been enlarged here threefold by Federal Power Commission. Scale figures shown in green."

You have a false legend there. Anyone reading that would take it that it is the entire scale and the entire graph.

That is a further objection to the admission of it in evidence.

EXAMINER SPENCER: The Examiner will admit this in evidence with the provision that it be completed, within a time to be specified later, and made to show the reading of the lower map all to the same scale, and that the requisite number of

copies be filed as required for exhibits by Commission Counsel.

MR. McALLISTER: Mr. Examiner, I would like to have you take the time now, if you will, please?

EXAMINER SPENCER: How long will it require to prepare it? It may be filed after the hearing.

MR. McALLISTER: What time, then, Mr. Bennett? A week from today?

THE WITNESS: As I understood the draftsmen, they said it would be about ten hours work to do the whole job.

BY MR. McALLISTER:

Q. It is a question of getting the draftsmen and working it in with the other work?

A. That is right.

Q. And we can do it a week from today?

A. Yes.

Q. And have it photostated?

A. Yes.

EXAMINER SPENCER: The completed copies will be filed on or before October 17th.

MR. McALLISTER: On or before October 17th and identified as Exhibit 20-A?

EXAMINER SPENCER: Identified as Exhibit 20-A, with copies to be furnished to opposing counsel, of course.

MR. PAXSON: Of course, in that event I trust the hearing will be over. There will be no opportunity for me to cross-examine. They could put anything on it they please.

EXAMINER SPENCER: It is true the hearing

will be over and you will not have an opportunity to cross-examine.

I take it the readings on both of these charts are the same. I do not want to deprive you of any right of cross-examination. But it seems to me that your cross-examination would be the same from this map as it would from a completed map. The witness testified it was merely to get a visual idea or picture of the two lines on the same scale.

Let the record show that the chart to be filed on or before October 17th is to be received as Commission Counsel's Exhibit 20-A, supplementing Exhibit No. 20.

(Attention was called to the fact that an exhibit had been introduced and assigned to No. 20 and that this one under discussion could not be assigned that number.)

Well, this chart will be referred to as Commission's Exhibit No. 21 and the one to be filed on or before October 17th will be received as Commission Counsel's Exhibit 21-A, supplementing Exhibit No. 21.

You may proceed with your cross-examination, Mr. Paxson.

Cross Examination

BY MR. PAXSON:

Q. Mr. Bennett, Respondent's Exhibit 8 is constructed how?

A. I didn't understand your question.

Q. Respondent's Exhibit No. 8, the original graph that we put in, was constructed how? What is it?

A. Respondent's Exhibit No. 8 is a photostat of the original graphic meters record for the period in question.

Q In other words, it is a photostat of recordations made by machines at the plant of the Public Service Elec-

tric and Gas Company at Mechanic Street? That is correct, isn't it?

A. That is correct.

Q. So there can be no question at all as to the accuracy of Respondent's Exhibit No. 8?

A. This is an accurate copy of what the meter recorded, but it is not necessarily an accurate copy of what occurred, due to instrument error. Except for instrument error it is an accurate copy.

Q. Aside from that possible exception it is, as you say, accurate? It is done by a machine?

A. It is a photostat of an original record.

Q. Which is done by a machine.

A. Of an original record which was made by a graphic instrument.

Q. Whereas this reconstructed portion which someone has superimposed— You did not do it yourself, did you?

A. No, sir. It was done by a draftsman.

Q. You had that done by a draftsman?

A. Yes.

Q. This reconstructed portion which someone has superimposed upon this graph may have all kinds of human errors in it, depending upon the expertness of the draftsman?

A. I will not agree to the "all kinds of error," because I checked it.

Q. You checked it yourself?

A. Yes.

Q. And you think this is accurate?

A. This is accurate.

Q. And to the scale?

A. This is accurate and to the scale within the range of ordinary drafting.

Q. Let's see what you did. You say you extended the ordinates? Is that right?

A. Each ordinate on the graph as submitted by

Respondent was multiplied by three and a new point located above so as to bring it to the same scale as the other graph.

Q. What do you mean by ordinate?

A. By "ordinate" I mean the distances measured vertically on the diagram.

Q. Has any change been made in the scale laterally. If the ordinates are longitudinal we have a scale we call a lateral scale which shows the time element.

A. The lateral scale which we ordinarily refer to as abscissae— The abscissae, representing time, was not changed at all.

Q. You have checked this map to ascertain that fact, have you?

A. I have checked points vertically to see that the point as drawn by the draftsman is three times the height of the corresponding one on the original chart, and since there was no tampering at all with horizontal lines there can be no change of scale in the horizontal direction.

Q. But you did not check this map to see whether or not there were any errors in the abscissae?

A. I checked the construction of the map and I checked individual points on the graph for accuracy. Otherwise I couldn't have sworn to the accuracy of the graph unless I had checked it in every way that error could come in.

Q. I am still asking you whether or not you checked the abscissae to see whether or not they were on identically the same scale as the graph which was submitted by Respondent as Exhibit No. 8?

A. The horizontal scale or abscissae is to identically the same scale as the original.

Q. You have pretty good eyes for reading maps, haven't you, Mr. Bennett?

A. I am not an oculist.

Q. How is that?

A. I am not an oculist.

Q. You are not a what?

A. An oculist.

Q. You are not an optimist?

A. I am not an oculist. I am not an eye expert.

Q. Well, let's get away from technicalities. Your eye sight is pretty good, isn't it?

A. My eye sight?

Q. Yes. It is pretty good?

A. Yes.

Q. Otherwise you could not have checked this very well with any idea of accuracy?

A. That is correct.

Q. Just cast your eyes over this reconstructed part superimposed upon Exhibit No. 8 and then compare Exhibit No. 8 as originally introduced for the period 2:24 a. m., that little line there which you testified as representing some 2500 k. w. I am just using that last reference so as to aid you in quick identification.

A. Okay.

Q. Do you think or do you tell me that the dimension and the width of that line is the same on both maps?

A. Are you referring to the width of the line in the original chart on power supply from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company and the width of our reproduction of that line to the larger ordinate?

Q. Yes.

A. And your question is whether the width of the line is the same?

Q. Yes.

A. Within the limits of ordinary drafting; yes, sir.

Q. There is quite a difference between the limits of ordinary draftsmanship and what the instrument records?

A. I am examining it under a reading glass, and if

there is a difference it is so small I cannot measure it under a reading glass.

Q. Those ordinates which stick up like spearheads all along there, aren't they all thicker and don't they create the impression of a much longer period of time under which there was a flow of energy than appear on the graph as submitted by Respondent?

A. I don't think so.

Q. You can't see any difference?

A. From the ones I have examined so far I do not find a measurable difference.

Q. Can't you use a millimeter scale?

A. That is what I am using.

Q. And have you inspected it right here?

A. I have measured them with a millimeter scale.

Q. And you cannot find any difference?

A. So far I have not found any difference large enough to measure or any differences which are not well within the range of ordinary draftsmanship.

Q. What is the range of ordinary draftsmanship? Of course, on our graph it looks just like a little whisker. The other looks much thicker.

A. To which one do you refer?

Q. I am talking about the one you testified to as showing a surge of power from the Jersey Central Power and Light Company to the Public Service Electric and Gas Company at about 2:24 a. m.

A. If you see any material difference in the original and the reproduction your eyesight is apparently better than mine.

Q. I am not going to argue with you as to whose eyesight is the better. We would have to get an oculist, as you say, to determine that fact. But, in any event, Mr. Bennett—

Let's get at it in this way—there has been no effort made in reconstructing this portion of the map to change

the scale in any way, that is, what I call the lateral and what you call the abscissae? To construct this map properly you should extend the ordinates three to one on the width of the lines? Correct me if I am wrong?

A. That is correct.

Q. The projections should be identical with those on the graph we submitted?

A. That is right.

Q. To keep the map on scale?

A. That is right. That is what we attempted to do.

Q. Now, Mr. Bennett, when you were stating your experience I believe you told us that you spent considerable time—and you gave the dates, so I will not characterize the time—on some Spanish properties.

A. That is correct.

Q. And some Mexican properties?

A. That is correct.

Q. That was about the extent of your experience other than some earlier experience as a cadet with Westinghouse and some time with— Was it the Utah Power and Light?

A. Do you mean with holding companies or with high tension transmission systems?

Q. I did not mention holding companies, and I don't know that you did either.

A. No, I don't remember, except the companies you enumerated were all holding companies, although my experience with high tension transmission systems is also outside the holding company groups.

Q. But in 1928 you changed your employment and became a professor or teacher or instructor?

A. That is correct.

Q. You are now employed by the Federal Power Commission, I understand?

A. That is correct.

Q. Tell us the nature of your duties with the Federal Power Commission?

A. Those duties vary considerable according to the assignment and the work that I have been doing. The major employment I have had since I have been here has been on transmission and distribution problems.

Q. To whom do you report?

A. Mr. Tate.

Q. Mr. who?

A. Mr. Tate, the chief of the division of Gas and Electric Resources, in the engineering department under Mr. McWhorter, chief engineer.

Q. You say you report to Mr. Tate or to Mr. McWhorter?

A. I report to Mr. Tate, who is chief of the division of Gas and Electric Resources in the Engineering Department, which is headed up by Mr. Roger McWhorter.

Q. You say your work is largely on distribution and transmission problems?

A. Yes.

Q. Will you be more specific about that? Of course, I am not asking you to divulge anything of a secret or confidential character, if there is such?

A. I would have to decline on my present work.

Q. You would what?

A. I would have to decline on my present work just because of the item you mentioned—of a confidential nature. But my previous job was in connection with the Bonneville, in which I laid out a transmission system, studied interconnections, power exchanges and power supply for Bonneville to connect up the Puget Sound system, the City of Seattle Municipal Plant, the Takoma Municipal Plant, the Washington Gas and Electric Company, the Portland General Electric, the Northwestern, the Mountain States Power Company, the California-

Oregon Power Company and Washington Water Power Company.

Q. You say you were laying out all of these systems?

A. I was laying out a transmission system for Bonneville.

Q. A proposed system?

A. A proposed transmission system for Bonneville to connect and supply and permit a supply of power to these systems to operate in parallel.

Q. That is P. W. A., isn't it? That is not within the jurisdiction of the Federal Power Commission, is it?

A. I was only responding to your question. You asked me what work I had done for the Federal Power Commission and I was telling you what work I did for the Federal Power Commission.

Q. Now, Mr. Bennett, tell me something about the size of the power systems with which you have had experience or that you testified as having had experience with in Spain and Mexico, or any others with which you have had experience, by which I mean employed by them. I am not talking about Bonneville now or the P. W. A.

A. You are not referring to interconnection studies?

Q. I am talking about the systems you actually worked for.

A. You are inquiring about systems I actually operated?

Q. With which you were connected, whether you operated them or not. If you did, all right.

A. The Spanish property was quite a large group. It consisted of quite a large group of plants in the Pyrenees and on the rivers running out of the Pyrenees, and three steam plants on the Barcelona end on our system, 110,000 volts and 88,000 volt transmission lines connecting them. One of the systems with which we were interconnected operated at a high voltage, although I do not remember the voltage at the moment. The transmission distance was

something in excess of over a hundred miles from their group of plants.

Q. I was thinking more of the capacity of the generators.

A. The capacity of the generators of the Ebro system itself was somewhere between 200,000 and 300,000 kilowatts. I don't recall the exact figure.

Q. Do you mean the aggregate capacity?

A. Yes.

Q. How many plants did they have?

A. How many plants?

Q. Yes.

A. Large and small?

Q. Yes.

A. I don't recall. I would have to count them.

Q. What was the capacity of the plant?

A. The capacities ranged from little fellows of almost negligible capacity up to the largest one in the group which in a single plant was, I believe, 48,000 kilowatts.

Q. Were these plants steam driven or were they driven by hydraulic turbines?

A. Both. We operated both hydro and steam.

Q. Of which did you have the more?

A. There were more hydro than steam in that particular system.

Q. It was chiefly a hydro system, wasn't it, with a few steam stand-bys?

A. It was chiefly hydro with some steam plants. The major part of the production—if you wish that—over the year's period was from hydro sources.

Is that what you mean?

Q. That is what I mean. That is what I was trying to get at. Now, how about the system in Mexico? What was the capacity there?

A. If I had anticipated this line of questioning I

would have checked up the exact capacity for all those. My memory is hazy on that.

Q. I don't blame you. I am not going to hold you to details. I am not going to try to impeach you in any way.

A. If we do not take into consideration the steam capacity which we were constructing at the time the Mexican system was between 150,000 and 200,000 capacity, I believe.

Q. Was that hydro or steam?

A. Both.

Q. Was it, like the Spanish properties, largely hydro?

A. It was predominantly hydro, with high tension transmission connecting to the steam system, which incidentally introduces much more serious problems than operating a straight steam system.

Q. Now, Mr. Bennett, page 999 of the record you state near the middle of the page that the impedances of the lines would affect very greatly the amount of energy that is instantly picked up when a sudden demand comes on the line.

Will you please explain what you mean by "instantly picked up" and how long a duration of time you refer to?

A. By "instantly" I mean as the word implies, right away, as quickly as the load had to be supplied. When the load comes on it has to be supplied from some source, and if it is supplied electrically it is supplied instantly.

Q. For how long a duration of time? You say it is instantly picked up. Of course, we all know instantly is as quick as possible or right away.

A. That is right.

Q. I just wanted to get your idea.

A. That is right.

Q. What is the duration of time to which you refer? You say it is instantly picked up. How long a period of time is it?

A. I don't understand the question. If it is instantly picked up, how long a time is it picked up?

Q. How long a time does it stay picked up? We are talking about impedances now as affecting very greatly the amount of energy.

THE WITNESS: Now, will you please read those last two or three questions.

(The questions were then read by the Reporter.)

THE WITNESS: The use of the word "instantly" in that connection referred to—

May I strike that?

EXAMINER SPENCER: Yes.

THE WITNESS: The duration of time during which the load carried is very largely determined by impedance alone?

Q. Then the duration of time—Let's see if this is correct, and remembering I am not an engineer but you are, and I am just trying to get the idea. The duration of time, then, would exist over the period of transient conditions, I believe you used that term in your testimony.

A. Yes. Whenever a load change comes onto a system there is a series of changes which take place, and the final adjustment of load may or may not be reflected in initial conditions. Final disposition may involve manual operation which will cause the load which is initially picked up by machines nearby to be transferred by relaying or otherwise to distant machines.

Q. Then the period of transient conditions would not exceed more than five seconds, would it?

A. The period of time during which the distribution of load is determined entirely by impedances or very largely by impedances in general would not exceed five seconds.

Q. On page 1001 you testified that the sudden load on Mechanic Street due to Staten Island Edison Corporation would have an effect on the power delivered by the Jersey Central Power and Light Company to the Public Service Electric and Gas Company and that there was a rise of load at this particular time amounting perhaps to 2500 kilowatts. That was your estimate from reading the graph, as I recall.

A. Yes.

Q. Now, correct me if I am wrong; but I think I have almost copied your language. You stated further that this is an abrupt increase in power from Jersey Central Power and Light Company to Public Service Electric and Gas Company amounting to approximately 2500 kilowatts at the same time that this sudden demand came on Mechanic Street substation. I think I have quoted you about correctly, haven't I?

A. The general drift is correct, I believe.

Q. I am not trying to tie you up on any particular word. The record speaks for itself as to what you said. I am just trying to get your idea as a premise for further questions.

Now, Mr. Bennett, will you please state how long this sudden demand existed and how much electrical energy expressed in kilowatts is represented by this mark? And I would prefer that you use the graph now that we put in, which is machine made, rather than allowing even for that possible latitude of error which is normal with a draftsman.

A. What apparently occurred in this case is that this load was thrown instantly on the South Amboy generating station, which slowed down the machine sufficiently to cause the governors to act and carried this 2500 kilowatts to which I have testified. Then, after a short interval of time, this load was shifted away from the South Amboy station. Whether this shift was manually or other-

wise brought about is not clear and cannot be established from the record.

Q. You mean from the chart?

A. I mean from the chart. I beg your pardon. I should have said from the chart.

Q. I don't want you to draw any conclusions from the record, if you mean thereby what other witnesses have testified to.

A. The chart does not show the cause or the reason for this power being shifted away from South Amboy.

The amount of kilowatt hours supplied, 2500 kilowatts for a short time, does not make a large number of kilowatt hours.

Q. I think you are capable of telling us with a pretty fair degree of accuracy, in view of all your experience. You certainly understand the use of a slide rule and a millimeter scale. Let's take that little whisker, as I call it, or that little pen line, and see if we can't determine, within the limits of the chart, of course, how many kilowatts are represented.

First of all, each division on the chart is five minutes, isn't it?

A. That is right.

Q. Have you a slide rule there?

A. Yes.

Q. What is your answer?

A. The amount of actual power which was supplied by Jersey Central Power and Light Company in this case to maintain the speed of the system until such time as the demand could be supplied from other sources was not great. It was probably of the order of 20 kilowatt hours. Twenty kilowatt hours supplied at a rate of 2500 kilowatts was effective in assisting to maintain the speed of the system in this section at that time.

Q. When you estimate or when you say not more than 20 kilowatt hours, what time?

A. I don't think I used that phrasing. I said of the order of 20 kilowatt hours.

Q. Of the order of 20 kilowatt hours?

A. Perhaps more or perhaps less.

Q. Can't you fix it more accurately than that with your instruments and training in your profession?

A. That is more accurate than the chart that you supplied.

Q. That does not answer my question—which is more accurate. Do you mean your instruments are more accurate than the chart?

A. I mean the calculations are more accurate than the chart.

Q. Let's have the time. You told me your estimate of the kilowatt hours. What time did you use to reach that approximation of 20 kilowatt hours?

A. I estimated it at a little less than a half-minute.

Q. You estimate it at a little less than a half-minute?

A. Yes, sir.

Q. Using your millimeter chart, you are not sure that it is so much less than that?

A. No. Due to width of pen and inherent errors of the meter I cannot testify more accurately than that to time intervals.

Q. Then, Mr. Bennett, take your assumption of about a half-minute—did you say?

A. How is that?

Q. Did you say a half-minute?

A. I think I said a little less than a half-minute.

Q. Taking your assumption that it was a little less than a half-minute, Mr. Bennett, do you think an operator would manually make this change within the time estimated?

A. If the operator is out of—I mean if the operator is at the side of the switchboard, this is well within the time that an operator would require for making the ad-

justment. If the operator were in a distant part of the room he would not make it so quickly. I don't know where the operator was at the time.

Q. Naturally, you do not.

A. No, I do not.

Q. As a matter of fact, you don't know anything about these plants except from such information as you obtained from reports, as I understand it.

A. I have testified throughout this record, as I have repeated at various times, as an expert speaking from sworn testimony regarding the things, which is the manner in which an expert practically always testifies, because if a man testifies to the size of the line it is very seldom that the man has any personal knowledge of the size of the line. To obtain any such personal knowledge he would have to climb poles and measure the size of the conductors, then go ahead with his wire gauge back to the laboratory and check the accuracy of the gauge. But it would not have been possible to measure the line at one particular spot but he would have to measure every piece of conductor if he was going to testify to the size from his own knowledge.

Q. I was just trying to bring out a few facts, and I am not disputing the fact that you are an expert. I have a great deal of respect for your ability.

A. I am only trying to explain.

Q I am not in any way attacking you as an expert, Mr. Bennett. I was only trying to bring out some facts.

A. I am only trying to explain that in testifying I have had access to all of the records needed for the purpose as to which I have testified, and I have not extended my testimony beyond the range of what I had information on.

Q. Going back to this graph which your said had errors due to margin of error which would be insignificant or infinitesimal, you engineers can figure even a millionth

of a second. There are instruments that do that, aren't there? It seems almost incomprehensible to me as a mere layman. But isn't that true?

A. What do you quote me as saying about the errors of the graph?

MR. PAXSON: Let the reporter read it. I am not trying to mix you up on language or words. I am just trying to get some things here in my crude way as a lawyer.

(The last question was then read by the Reporter.)

THE WITNESS: I believe in referring to the errors of the instrument I declined to say that your graph was absolutely accurate. I insisted that it was only an accurate copy of the record which was presented and which was made by the instrument and which might have all kinds of instrument errors. I do not recall that I testified to any statement that there were instrument errors.

Q. Well, that is agreeable to me. I don't know that you did either. If there is an error in the instrument is not the line shown on this graph that we are directing our attention to, and what I call a little whisker, actually wider than the time interval of the surge?

A. It might be or it might not be.

Q. It probably would be because of the lag in the instrument, wouldn't it?

A. Unless that is compensated for by a failure of the paper to move at that particular instant.

Q. Isn't it true, Mr. Bennett, that at about 2:24 a. m. the conditions on the Staten Island Edison Corporation were abnormal because of the cable failure on the 33 k. v. system of the Staten Island Edison Corporation at that time?

MR. McALLISTER: I don't believe this witness has testified about any cable failure on the system of the Staten Island Edison Corporation.

MR. PAXSON: If he does not know, all right. I am just asking him.

EXAMINER SPENCER: Can you answer that question?

THE WITNESS: Will you read the question, please?

(The question was then read by the Reporter.)

THE WITNESS: The record shows that there was an unusual demand from Staten Island Edison Corporation at that time. I beg your pardon. I don't mean to say "record"; I mean the chart. Respondent's exhibit 8 shows that there was an abnormal demand from the Staten Island Edison Corporation at that time. But I did not testify as to the reason for that demand.

BY MR. PAXSON:

Q. You don't know what the nature of the abnormal demand was, whether it was a cable failure or not; but it was abnormal?

A. As I recall the testimony, your witness was asked about that, because we were rather curious, and he testified that he didn't know.

Q. Now, Mr. Bennett, directing your attention again to respondent's exhibit No. 8, that upper portion of the graph which shows the electric current from the Public Service Electric and Gas Company to the Staten Island Edison Corporation there appears at about 2:24 a. m., a draft, I believe of something over 10,000 kilowatts. Will you please state the duration of that draft, as shown by the graph, of course?

A. I would estimate the duration of that draft as perhaps a minute, more or less.

Q. Directing yourself again to the lower portion of the graph, then isn't it true that the additional power furnished to the Jersey Central Power and Light Company about 2:24 a. m. for a period of a few seconds, more or less, was furnished during the transient conditions about which you spoke, Mr. Bennett?

A. No, that does not refer—or at least I was not referring to transients as something that happened a half minute, as this apparently did.

Q. You do not call that a transient condition?

A. That wasn't transient in the sense of the instantaneous response.

Q. But you say the graph indicates it was an abnormal condition which terminated very rapidly, apparently.

A. I said the graph indicated a heavy demand for energy from the Jersey Central Power and Light Company, a large amount of power supplied, something of the order of 10,000 kilowatts.

Q. Are you talking about the upper part of the graph or the lower part of the graph?

A. I am talking about the power supplied from the Public Service Electric and Gas Company to the Staten Island Edison Corporation during this minute you were just inquiring about.

Q. You don't call that transient?

A. No.

Q. I am talking about the power furnished by the Jersey Central Power and Light Company to the Public Service Electric and Gas Company on the lower part of the graph as indicated by this little whisker, as I call it, or this little line. Doesn't that reflect merely a transient condition, with the time being so slight?

A. I think I have stated already what I mean in re-

ferring to the instantaneous or transient effect. This is in excess of that time.

Q. If your computation is correct as to the time involved?

A. That is correct.

Q. If it was a matter of not a half-minute but of five seconds or ten seconds, and if that is the correct computation of that line, what would you say?

A. I do not admit that that is the correct computation of it.

Q. I said assuming that it was. I know you do not admit it, but I am asking you to. You have given us your estimate.

A. I believe I limited transient to something like five seconds as an outside figure.

Q. How would a transient condition show on Exhibit No 8, Mr. Bennett?

A. It might not show at all.

Q. And again it might?

A. It might.

Q. You do not have enough knowledge of these recording instruments to tell in your own mind whether or not it was so?

A. Will you repeat that question?

Q. I say, Mr. Bennett, you do not have enough knowledge of these recording instruments to tell in your own mind whether or not it was so?

A. It would depend entirely upon the duration of the transient after it was recorded.

Q. Of course, that is correct. But we were talking about a transient, and you gave us your opinion as to the time element involved. I am now asking, Mr. Bennett, whether with your knowledge of this type of recording instrument it would not show.

A. A very short transient will not show on an instrument of this sort. A transient a little bit longer may

show as only a portion of its true magnitude.

Q. A transient a little bit longer may show as only a portion of its true magnitude.

A. A transient a little bit longer may show as only a portion of its true magnitude.

Q. What is that due to, Mr. Bennett? Is it due to lack of knowledge?

A. It may be due to inertia of parts of the instrument or it may be due to the characteristics of the connecting circuits.

Q. From your knowledge of these recording instruments would you say a transient of five seconds would show?

A. What type of instrument is this?

Q. I am asking you. You are an expert and have a whole lot more knowledge than I. You profess to know the type and testified to them, at least on cross examation.

A. I haven't testified.

Q. I am not being cross examined. I admit I don't know.

A. Neither do I.

Q. Now when this condition, as shown by this little line at 2:24 a. m. had ceased, had normal or transient condition, whatever it is, I am not going to quarrel with you about that, it was within a few seconds, the increased flow of power from Jersey Central to Public Service Electric and Gas Company also disappeared, as shown by the chart, didn't it?

A. Is that a question?

Q. Yes.

A. Will you read it, please?

MR. McALLISTER: Is this question, Mr. Paxson, related to the testimony the witness has given this morning? You say a few seconds. I don't recall

any such testimony. Are you quoting him or are you injecting another element into the question?

MR. PAXSON: I don't think I am injecting a thing. He is an expert.

MR. McALLISTER: A few seconds, as stated by him. I didn't hear any—

MR. PAXSON: (interposing) He has already testified.

EXAMINER SPENCER: Read the question.

(The reporter thereupon read the pending question as recorded.)

MR. McALLISTER: As long as the witness understands the statment made as to a few seconds relates to whatever his testimony actually was, I have no objection.

EXAMINER SPENCER: Proceed.

THE WITNESS: If the statement of few seconds refer to my testimony, I am afraid I have been misquoted, because I testified I estimated the duration of this supply from Jersey Central at a little less than half a minute.

BY MR. PAXSON:

Q. Wasn't that a few seconds?

A. I would not say so.

EXAMINER SPENCER: Whatever it was.

BY MR. PAXSON:

Q. Answer the question, whatever it was.

A. At the end of this time the power was transferred away from the South Amboy Station, whether by mechanical action or by manipulation of the operators, I can't tell.

Q. It is true, isn't it, that this additional power flow you estimated at, I believe, about 20 kilowatt hours, is an amount of energy to be insignificant?

A. Not if the function the energy supplies is important, the amount of it is not a measure.

Q. In large systems like these with millions of kilowatt hours, as testified to, would you not call 20 insignificant?

MR. McALLISTER: That question, Mr. Paxson, of millions, over what period of time?

MR. PAXSON: Well, the period of time appears on the map he testified about.

MR. McALLISTER: Not on this chart.

MR. PAXSON: On this chart.

MR. McALLISTER: Not on this chart.

BY EXAMINER SPENCER:

Q. Do you know how much energy is involved, Mr. Bennett?

A. I have already made an estimate of the number of kilowatt hours which was supplied and I have already made an estimate of the amount of power that was supplied.

BY MR. McALLISTER:

Q. Mr. Bennett, with respect to what over the length of this chart, over a month, week or year, or anything of that kind have you related what is shown on this chart?

MR. PAXSON: Who is cross examining the witness?

MR. McALLISTER: I don't want this record to be complicated by a misunderstanding of the question.

MR. PAXSON: I don't want him to misunderstand the question either.

THE WITNESS: Is there a question pending?

MR. PAXSON: I think so.

EXAMINER SPENCER: Read the question.

(Thereupon the reporter read the pending question as recorded.)

EXAMINER SPENCER: You may answer the question, Mr. Bennett.

THE WITNESS: When 20 kilowatt hours is applied at a very rapid rate making a heavy draft of power, as in this case, it is important regardless of whether it is to a big system or a little one.

MR. McALLISTER: Read that, I didn't hear it.

EXAMINER SPENCER: Read the answer.

(Whereupon the reporter read the answer as recorded.)

EXAMINER SPENCER: Proceed, Mr. Paxson.

BY MR. PAXSON:

Q. On page 1003 of the record—

MR. McALLISTER: What page is that?

MR. PAXSON: 1003.

EXAMINER SPENCER: 1003.

BY MR. PAXSON:

Q. You stated, I believe, that as the lines between South Amboy, Mechanic Street Substation, are lines of considerable capacity, and therefore the power which flows instantaneously on the occurrence of a sudden demand will be drawn from the various available sources, including

South Amboy, will you kindly state what you mean by flows instantaneously, for what duration?

A. Instantaneously in this case has the same significance I have applied to it in previous testimony.

Q. That would be about five seconds, I believe you said before?

A. Five seconds, something of that order.

Q. That is what I mean. Now on page 1007 you testified in case of plants of the same capacity, same generating characteristics, the difference in amount of power instantaneously picked up would be fixed by the impedance characteristics of the connecting lines and generators, and therefore the plant that was nearest to the load, if the transmission lines were also of similar characteristics, would be greater than the amount picked up by the plants more distant.

I think that is in general what you testified to, isn't it?

MR. McALLISTER: Are you quoting from the record, Mr. Paxson?

MR. PAXSON: Well, I am reading more from my recollection of the record. I think I am paraphrasing it. It is maybe not word for word.

BY MR. PAXSON:

Q. I think I stated your testimony fairly, haven't I, Mr. Bennett?

A. That is more or less my recollection of what I testified to at the time.

Q. Now isn't it a fact that when the steady state of the generator has been reached the distribution of the increase in load on the generator depends upon the sensitivity of the governors on the steam turbines rather than upon the impedance characteristics of the connecting lines and generators?

A. I believe this was in response to a question by

the Examiner in which the hypothesis was similar characteristics of the generating stations. The two stations were to be alike, which involved similar characteristics, similar sensitivity, similar adjustments, similar location of the load control device.

Q. That isn't answering my question.

A. I believe you are correct.

Q. My question was assuming all that, isn't it a fact that when the steady state of the generators, after transient conditions have passed, they have what they call a steady state, I believe, according to you engineers, and when that steady state of the generators has been reached, isn't it a fact that the distribution of the increase in load of the generators depends upon the sensitivity of the generators on the steam turbines, I mean on the sensitivity of the governors on the steam turbines, rather than upon the impedance in the connecting lines and generators?

A. The initial distribution of load will be determined by the impedance on the electrical circuits. The slowing down, the instantaneous slowing down of speed will be determined by this draft upon the generators. The action of the governors will be fixed by the amount of slowing down of the turbine generators. And, after that has occurred, there may be a further redistribution of load either by a manual operation, or by action of the governors, in case there are radically different adjustments on the machines.

Q. I don't think you are answering my question quite responsively. I am not trying to get you in any trap. If I have quoted you incorrectly, tell me, and I will let you quote it yourself. All I am asking you is, isn't it a fact when the steady state of the generator—do you know what I mean by steady state of the generators?

A. Perhaps it would be better to define steady state.

Q. You have transient conditions and you have indicated a knowledge of those and in a sense defined it. After

that transient has been passed then you have what you call a steady state of the generators, isn't that technical language that is entirely familiar to you?

A. Are we taking a theoretical problem or a practical interconnected system?

Q. I am of the opinion you are talking about theoretical problems.

MR. McALLISTER: You stated you quoted his testimony. I can't find it. I would like to have the page number.

MR. PAXSON: All right, I will define, or try to, if Mr. Bennett says he doesn't know what I mean by steady state of the generators, that is all I want to know. He is supposed to be an expert, and I think I am using technical language which I have not invented myself.

BY MR. PAXSON:

Q. Do you know what I mean by steady state of generators? That is all I want to know.

A. I haven't—

BY EXAMINER SPENCER:

Q. Do you have a definition that would enable you to answer the question?

A. I have a definition which I consider steady state.

BY MR. PAXSON:

Q. That is an expression which engineers understand?

A. That is correct.

Q. What did you say?

A. That is correct,—

Q. (interposing) That is what I thought.

A. But there is no such thing as a steady state on a practical operating system on which loads are being continually added and withdrawn. Immediately after this

transient condition we have discussed, there would probably be a load change somewhere else which would again affect the governors and the governors are continually busy making adjustments in load changes on the system or back at the initial point and steady state, there just isn't such animal on a practical operating system. That is why I asked you the question were you talking about a theoretical problem or a practical operating problem.

Q. I am talking about the conditions that exist after the transient has passed. You may laugh at me because I am only a layman. We all know about equalization of output.

A. You mean the steam in-put equalizes the electrical out-put?

Q. Yes.

A. Except for losses.

MR. McALLISTER: I would like to know what the question is.

MR. PAXSON: Well, I am getting to a question. We have had some definitions and have had interruptions which I am not objecting to, if it clarifies the issue.

BY MR. PAXSON:

Q. Now I am going to again ask you, call it theory, if you please, that is all right with me, I am not quarreling with that.

I say, isn't it a fact when the steady state of the generators has been reached the distribution of the increases in load on the generators depends upon the sensitivity of the governors on the steam turbines rather than on the impedance characteristics of the connecting lines and generators?

MR. McALLISTER: Is that one question or three questions, Mr. Paxson?

EXAMINER SPENCER: I don't think he has asked but one.

MR. PAXSON: I have put that question four or five times. If Mr. McAllister wants it read perhaps we may ask the reporter to do so.

MR. McALLISTER: There are three questions.

MR. PAXSON: Maybe I am not explicit enough.

BY EXAMINER SPENCER:

Q. Do you understand the question, Mr. Witness?

A. I think I understand it.

Q. Can you answer?

A. I think so.

MR. McALLISTER: It is a question whether you can answer the question as put.

EXAMINER SPENCER: He says he can.

MR. PAXSON: I think he is intelligent enough to answer. I have a little more confidence in him than you have.

THE WITNESS: I am not wishing to delay the game, but may I ask to have the question read again?

MR. PAXSON: Certainly. I am not blaming you.

MR. McALLISTER: That is the trouble.

EXAMINER SPENCER: Mr. Reporter, read the question.

(The reporter thereupon read the pending question as recorded.)

THE WITNESS: Unfortunately the situation is not quite so simple as that. If we are taking a theoretical problem in which we have two power stations

of similar characteristics in operation at different distances from the load, the remaining load, if any, on a system is absolutely constant. Then comes this sudden increase of load. Your question, as I understand it, then, is whether the final distribution of power between the generating stations is determined entirely by the impedances of the circuits.

BY MR. PAXSON:

Q. No, I didn't say that. I said the sensitivity of the governors.

MR. McALLISTER: Let him continue his answer.

THE WITNESS: Whether it is determined by a sensitivity of the governors rather than by impedance of the circuits, I would say it is determined not only by sensitivity of the governors, but by the position of the load control mechanism in the governors at that time and by the loads which the machines themselves are carrying, which in turn, have been determined by the impedances of the circuits, and therefore, all these factors come into play, and not simply sensitivity of governors.

Q. But taking my question again and calling it pure theory, if you will; and assume that we have had this steady state and that the transient has passed, I again ask you, without any of these other factors being injected into it, which seem to me to avoid the question whether or not then the distribution of the increase in load on the generators doesn't depend upon the sensitivity of the governors rather than upon the impedance.

Now you have taught this subject—

MR. McALLISTER: (interposing) How—

MR. PAXSON: (interposing) Just a moment, I am asking the question.

MR. McALLISTER: I know you are, but what is the use of arguing with the witness. Let him answer.

MR. PAXSON: I put it on pure theory.

MR. McALLISTER: What kind of system are you talking about? I insist on that being stated.

MR. PAXSON: Mr. Bennett understands. I have a perfect right to test his knowledge.

MR. McALLISTER: That is true. Let those conditions as to the kind of system be stated in the question.

EXAMINER SPENCER: You mean hydro-electric system?

MR. McALLISTER: As to whether or not they are one generator or 40 or 50, whether this system or some other system, or what are the conditions.

EXAMINER SPENCER: As I understand the question it is purely hypothetical.

MR. McALLISTER: Without sufficient elements being stated. If they state the kind of system I have no objection.

EXAMINER SPENCER: Read the question.

(The reporter thereupon read the pending question as recorded.)

MR. McALLISTER: If that is related to the problem—

MR. PAXSON: I am not asking anything. This is hypothetical.

EXAMINER SPENCER: Answer the question if you can. If you want to say yes or no, you can do it and explain it, or you may give a qualified answer.

THE WITNESS: These other factors can not be eliminated, but the sensitivity of the governor is a factor in determining the distribution of the load.

BY MR. PAXSON:

Q. It is a deciding or controlling factor, that is after the steady state of the generators has been—

A. (interposing) It is one of the controlling—

Q. (interposing). I have asked you whether it isn't the deciding factor. Don't be an unwilling witness.

MR. McALLISTER: He is not unwilling.

EXAMINER SPENCER: Let us have order.

MR. McALLISTER: There is no sense in putting in these remarks on the side. I am trying—

EXAMINER SPENCER: (interposing) Let's get to the merits of the case.

THE WITNESS: I am afraid I have forgotten the question.

EXAMINER SPENCER: He asked if it wasn't the deciding factor.

THE WITNESS: I shall have to answer that as I have answered previously, that it is one of the deciding factors.

BY MR. PAXSON:

Q. One of the deciding factors?

A. One of the deciding factors.

Q. You don't know whether it is the deciding or controlling factor under my hypothesis?

A. The distribution of the load as determined by the transient conditions, being also a factor because there is a difference in governors and unless this difference in load is sufficient to force the transfer, some of the original load will remain, and the answer can not be given entirely

on the basis of the sensitivity of the governors.

Q. Assuming again steady state conditions, is it not a fact, that the relative electrical distance of the plants from the point at which an additional load is supplied is not a deciding factor of the distribution of that additional load on the various generators?

A. If we take into consideration governor characteristics and manual operation by the operators, then the initial impedance is not the deciding factor, as I have already testified, because the load may be transferred to any other place on the system that you wish.

Q. Supposing there isn't any manual operation?

A. What is the question?

Q. Supposing there isn't any manual operation?

A. If there isn't any manual operation then the distribution of the load will be fixed by governor characteristics and the distribution of load which remains when the transient condition has subsided, which is set up during the transient condition.

Q. Now then, Mr. Bennett, I ask you if this is a correct statement.

Transient electric phenomena are such as occur between two permanent conditions. For instance, when a load is suddenly changed, an appreciable time elapses before the generators and the line adapt themselves to the new conditions, and the current and the voltages during the interim time are called transient. Is that a true statement or isn't it?

A. Current, voltage, power flow, machine speeds, and so forth, and various other factors are transient during—

Q. (interposing) I have given you a definition. I am asking you whether it is correct or not. You know more about these things than I do and you can have it read as slowly as you please. I am asking you if it is a true statement.

EXAMINER SPENCER: Do you want it read?

THE WITNESS: Yes.

EXAMINER SPENCER: Read the question, Mr. Reporter.

(The reporter thereupon read the pending question as recorded.)

THE WITNESS: I believe that is correct and essentially complete.

BY MR. PAXSON:

Q. Now, then, referring to the lower graph on respondent's Exhibit No. 8, will you please state what you consider the time elapsing between the two permanent conditions showing on the graph at about 2:24 a. m.?

A. You are referring to the supply of power from Jersey Central to Public Service?

Q. That is right.

A. There doesn't seem to have been any steady state condition in there, because there was a fairly heavy load, gradually decreasing prior to 2:24, then an abrupt drop, then a rise of load a little bit, then a very abrupt rise, then a very abrupt drop, then, if I read the chart accurately, a very rapid rise, then a succession of small variations. There doesn't seem to have been any steady state in there.

Q. Now, Mr. Bennett, what determines the amount of electrical energy being delivered by a steam turbo generator?

A. That is connected to an interconnected transmission or that is connected directly to the load, which condition do you refer to?

Q. Any one.

A. The amount of steam admitted to the turbine.

Q. Now, Mr. Bennett, is this a true statement, the load division between two engines or turbo driven alternators in parallel is dependent solely upon the governors of their prime movers?

A. Are you referring to the steady state before the transient condition?

Q. Steady state.

A. Under steady state condition, why, two machines operating in parallel on a load, the distribution of load between the machines will be determined by the amount of steam admitted to each.

Q. Now then, Mr. Bennett, on page 1018 of the record, the Commission's counsel, at the bottom of the page, the last question, in putting that question inadvertently I believe misquoted Mr. Sibley's testimony, as shown on page 692 of the record, where he states that Mr. Sibley testified, in explaining Chart No. 8, that emergency energy required by Staten Island Edison Corporation resulted in excess generation. Mr. Sibley testified, as shown on page 692, in explaining this Chart No. 8, that emergency energy required by Staten Island Edison Corporation resulted in increased generation, not excess generation on the system of Public Service Electric and Gas Company.

Now if you will take that question and substitute increase for excess, would your answer be the same as you gave on page 1019 of the record?

MR. McALLISTER: I have changed that word excess to increased. I think I either misquoted myself or else there was an error in transcription.

THE WITNESS: A change of wording between excess and increased, I would not change my answer.

BY MR. PAXSON:

Q. All right. Now is the amount of energy flowing from Jersey Central Power and Light Company to Public Service Electric and Gas Company over the period of time covered by the emergency draft by Staten Island Edison Corporation increased by the amount indicated as increased flow from Public Service Electric and Gas Company to Staten Island Edison Corporation?

A. I am sorry. May I have the question reread?

EXAMINER SPENCER: Read the question, Mr. Reporter.

(The reporter thereupon read the pending question as recorded.)

THE WITNESS: I believe I have already testified in regard to that the initial suppiy from Jersey Central at the time there was increased draft of power from Staten Island— will you strike that, and let me begin over?

At the time of the increased demand from Staten Island there was an apparent increase in supply from Jersey Central to Public Service Electric and Gas Company, but for some reason, either operation by governors, load changes, or operators' manipulations, this immediate excess disappeared, and the power in later times was not in excess of that supplied prior to the draft from Staten Island Edison Corporation.

BY MR. PAXSON:

Q. In other words, let's see if I interpret you correctly. Does not the chart show that just previous to the draft of emergency power by Staten Island Edison Corporation, the power being furnished by Jersey Central to Public Service was being used by Public Service to meet its own requirements?

A. No, the graph only shows that there was a flow of power from Jersey Central to Public Service, but there is nothing in the graph to show where it was being used.

Q. I thought you testified the other day under certain assumptions that if the power supplied by Jersey Central to the Public Service was in excess of that supplied Staten Island Edison Corporation by Public Service the balance would go on the general system of the Public Service?

A. You asked me in this case what the graph showed and I answered what the graph showed. You did not put

in any hypothesis of other things. I answered only on the basis of what the graph shows.

Q. Well, if the graph does not show that the power being furnished by Jersey Central to Public Service was being used by Public Service to meet its own requirements, what was it used for?

A. Are you speaking of the period prior to 2:24 a. m. or after 2:24 a. m.?

Q. Prior.

A. At various intervals some of the power was going to or coming from Staten Island and the graph does not show whether power was being supplied, whether this power was flowing from Public Service to some of the interconnected companies, whether it was being used by Public Service or what became of it. The graph only shows the amount of power flowing on these two circuits.

Q. Well, let's see if I can get somewhere another way.

Assuming for the moment that Jersey Central Power was used by Public Service to meet Staten Island Edison Corporation's emergency requirements, would it not be true that Public Service would have to produce from its own facilities additional power to replace that which it had been obtaining from Jersey Central to meet its own load requirements, assuming it had load requirements?

A. If Public Service is receiving a certain quantity of energy from Jersey Central, and an additional draft is made on it from Staten Island Edison Corporation, and if the amount from Jersey Central remains the same, obviously additional power must be obtained from some source, either the Public Service plant or from some of its interconnections.

Q. What type and size of turbines does Jersey Central have in its South Amboy Station?

A. I don't recall that I testified as to the type of turbines in South Amboy. I did testify as to the capacity.

Q. You don't know their type or size?

A. I am not interested in the type.

EXAMINER SPENCER: Do you know?

BY MR. PAXSON:

Q. I am not asking if you are interested.

A. Yes, the steam turbines—

Q. (interposing) I asked you what the type and size was.

A. 50,000, two 25,000 turbo generating units, using steam.

Q. How do you know that?

A. From sworn testimony in the reports.

Q. What you have heard?

A. Which was submitted to the Federal Power Commission.

Q. What is that?

A. Which was submitted to the Federal Power Commission, and also sworn testimony in this case.

Q. Now is the governor sensitivity more or less important on an interconnected system or in a case of an isolated unit?

A. That is very much like the old debated question whether Lincoln or Napoleon was the greatest man. The sensitivity requirements are distinctly different in the two cases, but they are very important in both cases.

Q. On an interconnected system, could not any turbine be operated as a synchronized unit of that system, even if its governor did not exist by opening the throttle—

A. (interposing) If the operating company were willing to take the chance of the instability and the troubles that would result, it could.

Q. Do you know anything about the relative sensitivity of the governors at South Amboy and various other—

A. (interposing) There was nothing in my testimony that necessitated any such knowledge.

Q. That isn't answering the question. Be responsive.

A. I have not investigated the relative sensitivity of governors on various generating stations on Jersey Central, Public Service, and Staten Island, and the various systems with which these systems are connected.

Q. Disregarding all theoretical or minute or instantaneous considerations, will not the division of any change in load primarily depend in the change and amount or quality of steam admitted to all the various interconnected turbines?

A. Will you read the question again, please?

(The reporter thereupon read the question as recorded.)

THE WITNESS: In answer to a question of that sort, theoretically consideration can not be disregarded of—

BY MR. PAXSON:

Q. I am asking you to disregard that and then answer the question.

A. I am answering the question that it can't be disregarded.

Q. What was that?

A. I am answering the question that they can't be disregarded.

Q. Can't you answer from a practical, operating standpoint and not as a professor?

A. I am answering on this testimony entirely as an expert experienced in the operation of interconnected electric systems and not as a professor of electrical engineering.

Q. Is my statement from a practical, operating, engineering standpoint correct?

A. Did you make a statement?

Q. Yes, I said disregarding all theoretical and minute or instantaneous factors, you said there was five sec-

onds, disregarding the five seconds, will not the division of any change in load primarily depend on the change in amount and quality of steam admitted to all the various interconnected turbines?

A. If we are going to disregard all transient and minute conditions, and so forth, which may come into the question, then your inquiry is whether or not the load distribution between stations can be determined by the operator adjusting the amount of steam at that time admitted to the various turbines? The answer is yes, if that is the meaning of your question.

Q. I didn't say a word about the operator. I said disregarding all theoretical, and minute, or instantaneous factors, the five seconds, will not the division of any change in load primarily, I use the word primarily, talking as a practical operating man, will depend on the change in amount and quality of steam admitted to the various interconnected turbines?

MR. McALLISTER: Mr. Examiner, I submit the witness has answered the question.

MR. PAXSON: I submit he hasn't.

MR. McALLISTER: He has answered.

MR. PAXSON: He has avoided the question.

MR. McALLISTER: He has not avoided it.

EXAMINER SPENCER: I will let him answer it again, or answer it if he has not.

THE WITNESS: The ultimate distribution of load between power plants on an interconnected system after the transient conditions have passed is determined by the admission of steam to the turbines. However, that admission being governed by governor action or manual operation of the operators.

EXAMINER SPENCER: Does that answer the question, Mr. Paxson?

MR. PAXSON: I think so, after a long struggle.

EXAMINER SPENCER: Proceed.

BY MR. PAXSON:

Q. Now is it not a fact that it is the governor on each turbine and not any internal or external impedance that actually controls the load on that turbine?

A. The governor is the factor which controls the output of energy from a turbo generator set in the permanent condition, in steady state condition, but only then.

Q. What do you know about the effect of the steam receiver capacity of all or any of the turbo generators connected to this Mechanic Street Substation?

THE WITNESS: Will you read that?

EXAMINER SPENCER: Will you ask the question over, Mr. Paxson?

BY MR. PAXSON:

Q. What do you know, if anything, that is an addition, I didn't put that in, about the steam receiver capacity of all or any of the turbo generators connected to Mechanic Street Substation?

A. What do you mean in this case by steam receiver capacity?

Q. Don't you know what steam receiver capacity is?

A. I am asking you what you mean by it.

Q. I am asking you first if you don't know as an expert the meaning of those technical terms. If you do not, I will try to explain it.

A. I have no way of knowing what you mean by steam receiver capacity in this case because it may mean any one of several things.

Q. What several things?

A. When the steam leaves the turbine it is received in a condenser. I don't think that is what you mean, but it might be.

Q. You said several things, what are the others?

MR. McALLISTER: Mr. Examiner, I think when the question is in a well known term it ought to be included—

EXAMINER SPENCER: He said several things. The witness may answer.

THE WITNESS: I have not investigated steam conditions in any of the stations concerned because they did not have anything to do with any of the testimony which I gave.

BY MR. PAXSON:

Q. All right. Does not this receiver capacity have a large influence on the load carried by any turbine during the brief period before the governor action of any turbine can be made effective?

A. He is asking me to answer a question on a term which I don't understand.

EXAMINER SPENCER: I understand his question is a general question.

MR. PAXSON: It is a general question.

BY EXAMINER SPENCER:

Q. He refers to steam receiver capacity in any system. Does it have any effect before the other operations begin?

A. I have not testified in regard to mechanical conditions in these plants and don't propose to.

EXAMINER SPENCER: He has not asked you about these plants.

BY MR. PAXSON:

Q. I am not asking you to propose to do anything. I have given you a hypothetical question. You have already said you didn't know anything about the steam receiver

capacity of the turbo generators I have referred to and I am not disputing it.

I am asking you as an expert having large experience, as you say, with different systems, I am asking you does difference in this receiver capacity have a large influence on the load carried by any turbines during or before the brief period before the governor action of any turbine can be made effective?

A. I have not attempted to testify as a mechanical engineer and don't propose to.

Q. You mean you are not a mechanical engineer?

A. That is correct, and this theory is mechanical engineering, a question that has nothing to do with the testimony that I gave.

Q. That is for the Commission to decide. You testified on governors.

A. I testified as to certain features.

Q. Over my objection, I admit.

MR. McALLISTER: Let the witness complete his answer.

THE WITNESS: I testified as to certain requirements that were placed on the governors of turbines that had to operate on an interconnected system and I made it very clear at that time I didn't care how those results were obtained. I collected all the information that was pertinent to the testimony I gave.

BY MR. PAXSON:

Q. Let's not get angry about it.

A. I am not angry.

EXAMINER SPENCER: Proceed.

BY MR. PAXSON:

Q. I am just trying ot get some facts and I am not

trying to ball you up. I think my attitude has been correct.

A. If my voice implies I was pounding the table, I am not pounding the table and I apologize.

EXAMINER SPENCER: Apology accepted. You may proceed.

BY MR. PAXSON:

Q. The load carried by the generator has been testified to. Don't you think the receiver item is an important item to be considered?

A. Not in the testimony I gave.

Q. I am asking you as an expert.

A. I have already stated I was not testifying as an expert mechanical engineer.

Q. All right, let us ask another question. Is it not a fact in a 1,200 pound high pressure system that when the steam returns from the high pressure unit to the reheaters and goes to the low pressure unit, the receiver capacity is many times as great as in a simple, single barrel machine?

A. That is again a mechanical engineering question to which I do not testify in the direct examination and do not propose to testify to in the cross-examination.

Q. All right. Now, Mr. Bennett, is it not a fact that when a sudden increase in the system load occurs the frequency necessarily is slightly reduced, and this additional load is instantaneously furnished by the spinning momentum of every piece of revolving apparatus connected to the system?

A. That is correct.

Q. Is it not also correct the next thing that occurs is that one or more of the governors of the various machines are activated by this slight drop in frequency?

A. I have already testified so and I still think so.

Q. Is it not also correct that which governs and on

which machines are so affected by the minute drop in frequency is entirely dependent on the relative sensitivity of that individual machine and this relative sensitivity bears no relation whatsoever to the impedance or to the geographic or electrical distance of the turbine from the point at which the change of load occurs?

A. That question is rather long and involved. May I ask it be read?

EXAMINER SPENCER: Read the question.

(Thereupon the reporter read the pending question as recorded.)

THE WITNESS: That seems to be two or three questions. I will have to answer one at a time.

The instantaneous drop in speed in response to a suddenly applied load, as I have already testified, is determined by the inertia of the machines and the impedance of the machines, their size, the impedance of connecting circuits and possible other factors.

The load which is supplied under these conditions determines the drop in speed. This drop in speed, in turn, activates the governors and the amount of governor response on a particular machine depends upon the sensitivity of that particular governor.

Q. And not on the impedance or geographic or electrical distance of the turbine from the point at which the change of load occurs?

A. You are asking whether or not—

Q. (interposing) I am asking, I say it depends upon the relative sensitivity, and I am asking you if this relative sensitivity does not bear any relation whatsoever to the impedance or geographic or electrical distance of the turbine from the point at which the load occurs?

A. Governor characteristic does not depend upon the electrical circuits.

Q. Or the geographic distance?

A. Or the geographic distance. That is a matter of design in the governor.

Q. Now, Mr. Bennett, is it not true that stored momentum of every revolving piece of apparatus on a system is instantly available to carry instantaneous transient load?

A. It is available to assist in carrying instantaneous loads, whether transient or permanent.

Q. No fuel is used in the release of this stored energy and its conversion into electrical energy?

A. Addition fuel is used only after the governor has responded to the changes of speed produced by this instantaneous draft of energy.

Q. Can't you answer my question exactly?

A. I have answered it.

Q. I asked you if any fuel was used in releasing this stored energy and its conversion into electrical energy.

A. Fuel is not used in the release of energy, but fuel is used in replacement of energy so released.

Q. I think you can answer my question yes or no, and then qualify.

A. The question can not be answered yes or no.

Q. You can't answer that question yes or no?

A. The nature of the question is not such as to permit an answer of yes or no.

Q. Even when you qualify it you can't answer it?

A. That is correct.

Q. I am asking you a theoretical, scientific question, and I am going to repeat it.

You stated the stored momentum of every revolving piece of apparatus is instantly available to carry instantaneous transient load, didn't you?

A. The record will show.

Q. Well, that is not a very nice way to respond, but I guess you are right.

BY EXAMINER SPENCER:

Q. Do you know?

BY MR. PAXSON:

Q. I will ask you, isn't it true that no fuel is used in the release of this stored energy and its conversion into electrical energy?

You can certainly answer that yes or no and qualify if you want to.

A. I stated no fuel was used in the release of the energy, but that fuel had to be used to replace the energy so released.

Q. That is all right as to part, and that is true as to the conversion also, isn't it?

A. I don't know what you mean by that question.

MR. PAXSON: Let the reporter read it.

(The reporter thereupon read the pending question as recorded.)

BY MR. PAXSON:

Q. Not only its release, but its conversion into electrical energy.

A. No fuel was used?

Q. Yes.

A. In the conversion of the stored energy?

Q. Yes, in the conversion of the stored energy which is released.

A. An obligation is created to use fuel by the release of the stored energy.

Q. Some time in the future?

A. In the near future.

Q. So action of the governor is unnecessary to accomplish such release or conversion, isn't it?

A. This action takes place before the governor has time to respond.

Q. Now I will give you another hypothetical ques-

tion. If at the time a load goes off a certain substation and an identically equal load comes on, there would be no change in speed, would there?

A. If the load goes off from a comparable substation?

Q. And an identically equal load comes on at the same substation at the same instant?

A. And an identical load comes on at the same substation at the same instant?

Q. That is right.

A. There is no change on the system as a whole.

Q. You have no personal knowledge of Mechanic Street Substation or South Amboy Substation or any of the substations of Public Service Electric and Gas Company or Staten Island Edison Company either, have you?

A. I have all of the knowledge that I needed for everything that I testified to on direct testimony.

Q. I said personal knowledge, by your own personal inspection or observation.

A. Do you mean whether I have been to the substations or seen them?

Q. I think the question speaks for itself.

EXAMINER SPENCER: Answer the question if you can.

MR. McALLISTER: Mr. Examiner, personal knowledge can be acquired in different ways.

MR. PAXSON: I am not arguing this question with you.

MR. McALLISTER: No, but I am stating on the record, and if you want to ask him if he has been there, that is one thing. If he has personal knowledge based on the information supplied to the Federal Power Commission by these various companies, that is another thing. He may have intimate knowledge of the substations.

MR. PAXSON: All of which is all a matter of argument.

EXAMINER SPENCER: Can you answer the question, Mr. Bennett?

THE WITNESS: I am not quite sure what respondent's counsel means by personal knowledge. If he means to inquire whether or not I have been to the substations, the answer is no. If he means to inquire whether or not I know the characteristics of the substations from reports and sworn testimony furnished this Commission, the answer is yes.

MR. PAXSON: I am satisfied with the answer. No further questions.

EXAMINER SPENCER: I think at this time we can recess for lunch.

MR. McALLISTER: There are a couple of matters there I wish to inquire of the witness, Mr. Bennett, and it will extend the redirect for some time.

EXAMINER SPENCER: Well, we will recess then until 1:30.

(Whereupon, at 12:30 o'clock p. m., a recess was taken until 1:30 o'clock p. m. this day.)

Afternoon Session

(Met, pursuant to the recess, at 1:30 o'clock p. m.)

EXAMINER SPENCER: Gentlemen, the hearing will now be resumed.

Before resuming the redirect examination, Mr. Paxson wasn't there a matter left open about furnishing papers?

MR. PAXSON: Yes, Mr. Examiner. They were supposed to be furnished today. But, of course, no

one anticipated that the hearing would last this long. Suppose we be allowed a reasonable time.

EXAMINER SPENCER: What time do you think should be allowed?

MR. PAXSON: If Mr. McAllister will tell me how long the case will continue, I might make a suggestion.

EXAMINER SPENCER: Will the 24th be sufficient time?

MR. McALLISTER: May we wait until we get through?

EXAMINER SPENCER: I wanted to do it now while we have the matter in mind.

MR. PAXSON: I think the 24th will be all right. I don't think I will have to ask for any further extension. But I am assuming that the case will close today.

EXAMINER SPENCER: If we do not adjourn today we will fix the time later.

CLAUDIUS E. BENNETT

resumed the witness stand and, having been previously sworn, testified on behalf of the Commission as follows:

Redirect Examination

BY MR. McALLISTER:

Q. Mr. Bennett, with respect to the stored energy in a revolving generator, was that condition accomplished without the utilization or expenditure of fuel?

A. No. It took fuel to make the steam and bring the rotor up to that speed, and when the rotor is slowed down by drawing this stored energy it necessarily is using fuel

energy, that has been spent sometime previously and creating an obligation to restore something.

Q. To restore that requires again the expenditure of steam which is produced by the consumption or the burning of fuel?

A. That is correct.

MR. McALLISTER: That is all I have.

BY MR. PAXSON:

Q. But no additional fuel was burned at the instant this energy was released, I believe you said?

A. At the instant it is released there is no additional burning of fuel. The fuel is burned when the energy is restored or when it was originally put in there.

MR. PAXSON: That is all.

MR. McALLISTER: That is all.

EXAMINER SPENCER: You may be excused. Mr. Bennett.

(Witness excused).

EXAMINER SPENCER: You may call your next witness, Mr. McAllister.

MR. McALLISTER: I will call Mr. Woll.

LAZAR B. WOLL

was called as a witness for and on behalf of the Commission and, having been first duly sworn, testified as follows:

Direct Examination

BY MR. McALLISTER:

Q. Will you please state your full name?

A. Lazar B. Woll.

Q. And your address?

A. 5007 Third Street, N. W., Washington, D. C.

Q. Are you a graduate electrical engineer?

A. Yes, sir.

Q. Will you please describe briefly your education and experience?

A. I graduated from Columbia University School of Engineering with the degree of Bachelor of Science in Electrical Engineering and Electrical Engineer.

Q. What was your education and training prior to that, Mr. Woll?

A. I went through high school and the elementary school and college.

BY MR. PAXSON:

Q. I did not hear your answer.

A. I said I took a regular pre-college course in the school of engineering.

Q. Will you state where?

A. Partly on the other side and partly in this country.

BY MR. McALLISTER:

Q. State where it was, please?

A. It was in Russia.

Q. Was that in your primary education?

A. Yes; primary and part of my secondary education.

Q. What colleges did you attend in your college work?

A. The College of the City of New York and Columbia University.

Q. How many years of college work did you take at the College of the City of New York?

A. About two years.

Q. About two years?

A. Yes.

Q. Then you began your study of engineering at Columbia University?

A. Yes.

Q. And I think you graduated?

A. Yes.

Q. With the degree of Bachelor of Science in Electrical Engineering and Electrical Engineer?

A. Yes.

Q. What year was that?

A. 1929 and 1930.

Q. You got which degree at which time?

A. The Bachelor of Science in Electrical Engineering in 1929 and Electrical Engineer in 1930.

Q. Electrical Engineer in 1930?

A. Yes.

Q. Does that embody graduate work?

A. Oh yes; that is graduate work.

Q. What has been your experience since 1930?

A. I worked for a short period of time with the Third Avenue Railway System in New York in a substation. I then worked for about six months at the end of 1930 and part of 1931 with the Electro Dynamic Company, Bayonne, New Jersey.

Q. In connection with what?

A. Construction and design of electric motors and generators.

Q. Then what?

A. I then worked for about a year, in 1931 and part of 1932, for the Artificial Ice Company in Kansas City, Missouri as operating engineer in charge of ice production. They had a small substation and various electrical equipment for the operation of the plant.

After that I worked for about a year or approximately a year with Walter M. Palakov, Industrial Engineer, on problems of management and production. Since 1933 I have been employed by the Federal Power Commission.

Q. What is the nature of your work with the Federal Power Commission?

A. That work varied. Originally I was engaged on the National Power Survey, and in that work my assignments were on problems of power marketing, forecasting and utility statistics in general.

Subsequent to that work, which was completed about the middle of 1935, I worked on a study of the Booneville project, similar to the one Mr. Bennett described previously. My work primarily was in connection with economics, power of generation, transmission and distribution. All of my work, in fact, was primarily with economics of electric power.

Since about a year ago I was assigned to work under Mr. Grimsley, who testified in this case, in making studies of the flow of electric energy over transmission lines for the purpose of determining whether or not the energy originating on the facilities of any particular distance can be traced as flowing in interstate commerce over the facilities of this system or over the facilities of some intermediate companies. In this connection I have made a series of studies, including this one with which we are now dealing.

Q. Mr. Woll, have you prepared a diagram showing the flow of energy between the Jersey Central Power and Light Company and the Public Service Electric and Gas Company, and between Public Service Electric and Gas Company and other systems operating in New Jersey, New York and Pennsylvania?

A. Yes; I have.

Q. Mr. Woll I show you a chart which is entitled "electric energy transactions between utility systems affecting the operation of Jersey Central, 1934 to 1937", and I will ask you if that is the chart which you prepared and to which you have just referred?

A. That is right.

MR. McALLISTER: Mr. Examiner, at this time I ask that the chart identified by the witness be identified as Commission Counsel's Exhibit No. 22, and I ask that it be received in evidence as that exhibit.

MR. PAXSON: May we have just a moment to look it over?

EXAMINER SPENCER: Yes, Mr. Paxson.

MR. PAXSON: If the Commission please, I object to the offer of this chart in evidence. It is entitled "Electric energy transactions between the utility systems affecting the operations of the Jersey Central Power and Light Company for the years 1934 to 1937".

Now, I think the operations of the Jersey Central Power and Light Company involves a conclusion. And certainly this witness has not testified as yet to any conclusions, and I don't know that he is qualified to.

Below the line is the statement of interchange of electric energy between companies affecting interstate transfers in 1936. That also is a conclusion. It may be a conclusion of fact. It also involves a conclusion of law, for which this witness is not qualified; and it begs the entire question which this Commission has to decide. I might add, of course, that this chart is on a pretty small scale and it is rather difficult to read it without a magnifying glass. After all, perhaps that is not as important an objection as the others.

I might add that it is common knowledge, I suppose, and Commissions take judicial notice of the ordinary direction of state lines. It does not look to me as though this has any geographical locations as to the

different states. It does not indicate any proper location of plants with respect to state lines. And I certainly object to those captions. And it cannot be received in evidence at this time under any rule of law that I know of.

EXAMINER SPENCER: What have you to say, Mr. McAllister?

MR. McALLISTER: It is a captious objection, Mr. Examiner, for the simple reason that the use of a term by the witness may have an entirely different meaning than that which is given to it by Mr. Paxson. It is not a conclusion, as I view it. And certainly Mr. Paxson has every opportunity to inquire of the witness as to what is meant by the term on cross examination. The same word used in the second part of the chart is a word that can also be defined by the witness.

In other words, the witness has set forth on here certain facts based upon records and testimony in this case and intimation supplied by these companies under oath, and he has merely related that information in this graphic style so that it can be understood and seen

The witness will explain fully the information that is on there and the inter-relation between the movement of energy from one company to another.

To my mind it contains a very vivid picture of what is taking place on a large interconnected system. There has been a great deal of testimony in this record relating to the manner in which energy in part of the system may affect the operations in another. Witnesses for respondent particularly have dealt with that problem. And I think it is important that the facts, all of the facts, with respect to the transaction

between these companies be assembled in some form so they can be readily understood and appreciated by those who are to pass judgment upon the relationship which these various companies bear to one another and the effect that these interstate operations have upon the various companies, including the Jersey Central Power and Light Company, as well as the showing of a direct transfer of energy generated in one state to another state for sale at wholesale.

As I stated at the outset of my remarks, the objection that has been made is wholly without force and can readily be limited by the statement of the witness as to just exactly what he means by the use of the term.

EXAMINER SPENCER: I was going to ask the witness this question. This chart purports to show the locations of certain power company plants and the connections and the amount of energy moving from one to the other?

MR. McALLISTER: Not plants, Mr. Examiner.

EXAMINER SPENCER: What are they?

MR. McALLISTER: Just what they are labeled.

EXAMINER SPENCER: "Staten Island Edison Corporation."

MR. McALLISTER: Exactly. It is systems.

EXAMINER SPENCER: I thought this line would come from a power plant. But it doesn't make any difference. It is the property of these various companies. I want to know if the map itself shows that?

MR. PAXSON: Well, Mr. Examiner—

EXAMINER SPENCER: I will not question the

witness on that. I do not want anything put into the record that might overcome your objection in that way.

Will the witness state what the chart does show?

MR. PAXSON: Since Mr. McAllister has made an offer and made some statements that I did not understand at the time, I think I am justified in making some further objections to the offer of this chart.

In the first place, I might say that this offer of the chart is, under no stretch of the imagination, proper rebuttal testimony in any way. If Mr. McAllister wanted to offer this chart it should have been in his direct case. This is not in rebuttal of anything our witnesses have said and I don't think it is proper to offer it at this time.

Aside from that, Mr. McAllister stated very distinctly, and I wrote it down, that this chart is based upon the records and the testimony in this case.

Now, if it is based upon the records, I already have my objection to those records as hearsay. If it is based upon testimony, it is an admitted rule of law beyond peradventure of contradiction that no man can come forward as an expert witness and offer testimony based upon evidence in this case, based upon his recollection or based upon it. That matter of what is based upon testimony is for the determination of this Commission.

This graph, with that statement by Mr. McAllister, is clearly inadmissible under any rule of law I know of.

I might also add it has figures for the year 1934, and I object to anything relating to any transaction prior to August 26, 1935.

MR. McALLISTER: Based upon my statement that it was based upon facts of record or based upon testimony in this case may be entirely eliminated.

MR. PAXSON: You have already told us.

EXAMINER SPENCER: Just state the facts as to how it was prepared and what it purports to show.

MR. PAXSON: It should not be eliminated. He made that statement on this record and I want it to stand.

MR. McALLISTER: We can't change the facts, regardless of what Mr. Paxson says. I know, as a matter of fact, that it was not based—

EXAMINER SPENCER: You may proceed.

MR. McALLISTER: I know, as a matter of fact, that this chart was prepared before there was any testimony in this case, and the only thing I had in mind was that the facts that are stated on here are supported by the testimony in the case.

MR. PAXSON: You are not testifying, Mr. McAllister?

MR. McALLISTER: No; I am not; but I am making a statement so there can be no question about it.

EXAMINER SPENCER: You may proceed.

BY MR. McALLISTER:

Q. Mr. Woll, will you be good enough by reference to the chart which has been offered in this case and identified as Commission Counsel's Exhibit No. 22, to explain just what it shows and what facts are related thereon?

A. This chart was drawn up to show the interchange of energy between a number of systems, including the Jer-

sey Central Power and Light Company, and does not indicate geographical locations of properties or of power plants or of transmission lines, but merely the fact that the particular systems are in one state or in another.

The term "affecting", as used in this chart indicates that the transactions between the Jersey Central Power and Light Company, the company under discussion, with other systems has a direct relation to the interchanges which these other systems carry out with systems in the same state and adjoining states.

MR. PAXSON: I move that that answer be stricken out. It contains a conclusion and begs the whole question at issue before this body.

MR. McALLISTER: Mr. Examiner, I insist that the witness be permitted to complete his explanation before counsel for the Respondent interposes his objections and attempts to break the line of discussion and explanation by the witness.

MR. PAXSON: I have a right to address this Commission and ask that certain statements be stricken out. I have not addressed myself to you, Mr. McAllister.

EXAMINER SPENCER: Mr. Paxson, will you make a note of that and after the witness gets through explaining it renew your objection?

MR. PAXSON: I thought he was through.

THE WITNESS: Not yet.

BY MR. McALLISTER:

Q. Will you please proceed?

A. The main thing that stands out on this chart is the fact that the companies operating in New Jersey—

MR. PAXSON: I have to object. I cannot let

him get in a lot of conclusions. "The main thing that stands out"—another conclusion.

I think you did direct this witness to state facts and not conclusions, Mr. Examiner.

EXAMINER SPENCER: Yes; you must confine yourself to statements of fact.

THE WITNESS: This chart shows the Jersey Central Power and Light Company has delivered to the Public Service Electric and Gas Company in 1936 70,684 kilowatt hours, and in the same year received from the Public Service Electric and Gas Company 1,240,540 kilowatt hours.

BY MR. McALLISTER:

Q. By reference to your chart please indicate just where that is shown?

A. That is shown by transactions indicated as "G. and H".

It also shows the Public Service Electric and Gas Company received in the same year from the Philadelphia Electric Company 169,648,000 kilowatt hours and delivered to the Philadelphia Electric Company 10,611,000 kilowatt hours.

MR. PAXSON: If the Commission please, I move that statement be stricken out. There is no basis for the statment that I know of. The Philadelphia Electric Company has not appeared here. We are not bound by any reports that the Philadelphia Electric Company makes, and I do not think there is any proof of the authenticity of the figures.

MR. McALLISTER: Will you permit the witness to complete his explanation and then let counsel for the Respondent determine what he does think the figures are as used?

EXAMINER SPENCER: The witness will have to establish the basis and show the source of information.

THE WITNESS: All of the figures I have quoted so far and all of the others shown on this chart are all given in exhibits Nos. 2, 3 and 4, which have already been introduced in evidence. Commission Counsel Exhibits Nos. 2, 3 and 4, contain all of these figures.

MR. PAXSON: Is this just a pictorial representation—

MR. McALLISTER: Just a minute, please. When you get into cross examination you can find out what it is.

MR. PAXSON: I may not make so many motions to strike if I can get the facts. I am trying to expedite it.

EXAMINER SPENCER: Go ahead.

BY MR. PAXSON:

Q. Do I understand all of the figures shown on this chart—This is just a pictorial representation in your mind of figures already contained in exhibits which have been introduced?

A. That is right.

MR. PAXSON: I think that clarifies the air a bit.

BY MR. McALLISTER:

Q. Will you proceed, please?

A. It also shows the Public Service Electric and Gas Company in this same year delivered 54,357,000 kilowatt hours to the Pennsylvania Power and Light Company and received in the same year from the Pennsylvania Power and Light Company 41,966,000 kilowatt hours.

The chart also shows the New Jersey Central Power and Light Company delivered to the Metropolitan Edison Company, operating in Pennsylvania, 214,520,945 kilowatt hours and received from the Metropolitan Edison Company 37,077,262 kilowatt hours.

It also shows the Public Service Electric and Gas Company in the same year delivered 3,296,666 to the Staten Island Edison Corporation and received from the Staten Island Edison Corporation 3,111,400 kilowatt hours.

Public Service Electric and Gas Company interchanged power with the New Jersey Power and Light Company and delivered to this latter company 22,405,000 kilowatt hours and received 20,911,000 kilowatt hours.

The New Jersey Power and Light Company in 1936 delivered 2,649,950 kilowatt hours to the Central Hudson Gas and Electric Company, operating in New York, and received from the Central Hudson Gas and Electric Company 7,513,732 kilowatt hours.

It shows the Jersey Central Power and Light Company delivered to the New Jersey Power and Light Company 108,000 kilowatt hours and received an amount which was difficult to show on this chart because of it smallness.

Q. What is that amount, Mr. Woll?

A. I would have to look at the exhibit. I cannot read it from this chart. It was so small it could not be shown on this chart. That is why it is shown here in the form of a dashed line.

Q. Will you state what that is and determine that from the exhibit on which it appeared?

A. It would appear on Exhibit No. 2.

Q. Do you have Exhibit No. 2 there before you?

A. Yes, sir.

Q. Will you state what the figure is?

A. It is shown on Exhibit No. 2 under the year 1936 as 108,600 kilowatt hours was a negative sign indicating

energy lost in energizing interconnecting line, which would really indicate a delivery rather than a receipt.

BY MR. PAXSON:

Q. A what?

A. A delivery of energy rather than a receipt?

BY MR. McALLISTER:

Q. Will you please proceed?

A. The lower part of this chart shows all of these interchanges which I have identified so far for four years and the black bars correspond to those bars which I have quoted. For the other years they are shown in the white bars or, rather, in the light bars, and they differ in quantity for the various interchange transactions that are shown on the chart.

There is a scale on the right and on the left showing these transactions in millions of kilowatt hours.

Q. The blocks on the bottom in black are those reproduced above this line on this chart?

A. Yes; to scale.

Q. The lines which are used indicating divisions between states at the top, New York on one side and New Jersey on the other and down below New Jersey and Pennsylvania?

A. Yes, sir.

Q. What do they represent as shown on this graphic reproduction? In other words, do they merely divide the systems as they operate in the various states in which they are a part without other reference whatever as to the relative locations of the various plants in any state?

A. That is correct. It is merely an indication of the state in which the particular companies operate and not geographical locations of the company in the state.

Q. And the flow of energy between those systems, one being located in one state and the other in another, whatever the transactions between the companies actual-

ly might be, represent the flow of energy between the companies as you have shown it?

A. That is right.

Q. And that information, as you stated previously, is shown on various exhibits which have been received in evidence in this case?

A. That is right.

MR. McALLISTER: You may cross examine.

Cross Examination

BY MR. PAXSON:

Q. Mr. Woll, this line which reads "interchange of electric energy between companies", and so on, is that only for the one year, 1936?

Let me explain myself. Does that mean that these figures as indicated on this map cover only one year, or is it four years?

A. Just the year of 1936.

Q. Then all of those figures on these various lines in the state of New Jersey are just for the one year?

A. The title applies to the chart as a whole. The upper chart is explained in the subtitle underneath, "interchange of electric energy between companies affecting interstate transfers in 1936." And on the lower chart there is a statement "inter-company electric energy transfers".

Q. What I am trying to do is reconcile the statement in one place about 1936 and the statement in other places about 1934 to 1937, just to ascertain what the chart purports to show. And in making the statement kindly leave out the words "affecting interstate transfer", which is a conclusion.

THE WITNESS: Now, what is the question?

(The following was then read by the Reporter:)

"Q. Then all of those figures on these various lines in the State of New Jersey are just for the one year?"

THE WITNESS: Yes; they are for 1936.

BY MR. PAXSON:

Q. On the bottom subdivision of this chart which has these blocks in black, which reads: "inter-company electric transfers, 1934 to 1937", do I understand that those portions inked in solidly in black represent the net transfer or the aggregate both ways? I am just trying to see what the basis of your comparison is. I don't know. I can't read these letters at all. Perhaps my eye-sight is defective.

A. It shows the total flow in each direction, and there is a note on the lower part of the chart stating "black bars represent 1936 values snown on above diagram".

MR. PAXSON: I will have to ask that that answer be read, as I did not understand it.

(The last answer of the witness was then read by the Reporter.)

BY MR. PAXSON:

Q. I guess I will have to start all over again. As the answer was read it was in each direction. The bars are just solid bars. You have a bar D, and that goes up a certain height on the chart. Is that bar the sum of the flow in both directions?

A. No, sir.

Q. Or is it the net?

A. No, sir. If I might explain, the transfers of energy between the Public Service Electric and Gas Company and the Philadelphia Electric Company are identified as C and D, the "C" for the flow from the Public Service

Electric and Gas Company to the Philadelphia Electric and the "D" being for the flow from the Philadelphia Electric to the Public Service Electric and Gas Company.

Q. Then, you have separated them?

A. They are separated, and they are shown in a similar way on the lower part of the chart.

Q. I wasn't able to get it all, and that is why I asked the question.

This note to which you referred says "black bars represent 1936 values shown on above diagram". What do you mean by that? I don't get it yet. I don't know just what you mean by "values".

A. I will explain it. The upper part of this chart shows the flow of energy between each two companies or each pair of companies, in both directions, drawn to scale, so many millimeters or inches across the bar corresponding to so many million kilowatt hours flowing from one company to the other.

In the lower part a similar scale is used to represent the flows for each of those years, 1934, 1935, 1936 and 1937. We just took out one year and show it in detail and the companies between which these transactions took place, by designating each transaction with a letter and showing it in the lower chart we can relate the flows or transactions for the several years.

Q. Perhaps it is very clear to you, and perhaps I am very stupid in reading the map, and probably I am. But you said the upper chart was drawn to scale. A little while ago you said there was no effort to show geographical locations. There is no scale on this thing, is there? I can't see one of them.

A. The width of the band connecting two companies, for example the New Jersey Power and Light Company and the Metropolitan Edison Company. The power identified as "O" showing a flow of 214,000,000 kilowatt hours to the Metropolitan Edison Company, is shown wider than

a similar bar indicating the flow from the Public Service Electric and Gas Company to the Philadelphia Electric Company, which flow amounted to 169,000,000 kilowatt hours. It is the scale for the bands indicating the flow rather than for the companies themselves.

Q. Did you draw this map or chart?

A. I had a draftsman draw it.

Q. Can you tell me that these lines are drawn to a scale and the character of the pen and the density of the ink all indicate something?

A. No. It is the width of the bar or the width of the band connecting the two companies that indicates the quantity or the amount.

Q. Is the scale which is utilized shown on this map so that anybody else could determine it, that is, that it is drawn according to scale?

A. Yes. The scale is shown in the lower part of the chart.

Q. Where is it?

A. To the right of the lower part and to the left of the lower part in millions of kilowatts.

Q. It is certainly a very minute scale.

A. Yes. It states "figures indicate kilowatt hours. Arrows show direction of flow. Width of band proportional to kilowatt hours".

Q. Did you say you used a millimeter scale?

A. I don't recall now whether it was a millimeter or an inch.

Q. You can't tell me just what each of these little things on the second line is? Is that it?

MR. McALLISTER: Without intending to interrupt, Mr. Paxson, I think it might be cleared up if Mr. Woll would indicate what this thing was drawn on and then photostated.

MR. PAXSON: He is offering this in evidence. Now, you are trying to bring in a bigger chart.

EXAMINER SPENCER: Proceed, Mr. Paxson.

MR. PAXSON: I am directing myself to the one Mr. McAllister offered in evidence.

THE WITNESS: Yes; it is drawn to an inch scale, and 300,000,000 kilowatt hours corresponding to one inch.

BY MR. PAXSON:

Q. 300,000,000 kilowatt hours corresponding to one inch, you say?

A. Yes.

Q. And you are able to take a line between the Philadelphia Electric Company and the Public Service Electric and Gas Company, that first line on the right, and you can tell from the looks of that line how many kilowatt hours flowed over it, can you?

A. By using the scale I can approximate it; yes, sir.

Q. Nobody could do it with the naked eye at all, could he, Mr. Woll?

A. This chart is a reproduction of an original chart which was drawn on a much larger scale, where one could read it with much greater precision than can be done on this reduced size chart.

MR. PAXSON: I have no further questions.

I still stand on my objection that this chart is not proper evidence in this case.

Redirect Examination

BY MR. McALLISTER:

Q. In order that the record may be entirely clear, Mr. Woll, will you state upon what sized chart the drawing was originally constructed?

MR. PAXSON: Just a minute, please. Is he going to use something other than this chart?

MR. McALLISTER: He is merely explaining something, Mr. Paxson.

EXAMINER SPENCER: No; he is not going to use any other chart.

MR. PAXSON: He seems to be using it.

MR. McALLISTER: He is merely explaining the manner in which this chart was constructed.

MR. PAXSON: Let him explain it without reference to that other chart.

MR. McALLISTER: He can make this record very clear as to just what took place and how this chart was constructed. And I think it is very important.

THE WITNESS: As originally constructed, this chart was built on a scale three times as big as the one that is used on this photostatic copy. I stated before that on this photostatic copy one inch corresponds to 300,000,000 kilowatt hours?

BY MR. McALLISTER:

Q. When you refer to the copy there, Mr. Woll, you refer to the copy that has been offered in evidence, do you not?

A. Yes, sir.

Q. Will you please proceed?

A. On the original chart it is three times as large and one inch corresponds to 100,000,000 kilowatt hours.

Q. And having constructed the chart on the larger scale, by what process was it reduced?

A. By photostatic process.

Q. By photographic process?

A. Yes.

Q. So that the scale utilized in the construction of the drawing and then reduced to the size of Exhibit No. 22, as offered in evidence, retains the precision which was accomplished by the use of the larger scale at the time it was constructed? Is that true?

A. That is right.

Q. Furthermore, Mr. Woll, do you ask anyone to undertake to determine the flow of energy between any two companies by evaluating the band which joins those companies, or is it a fact that the figures are shown on the chart?

A. The figures are shown on the chart.

Q. And the size of the band is merely to afford a means of visual comparison?

A. That is precisely what it is for. The width of the bands is merely for a comparison of the transactions between one system and another, or between one pair of systems and another pair of systems.

Q. And is the chart so constructed that if the size of the bands as constructed were minutely examined and compared it would represent relatively the movement of energy as indicated by those bands?

A. That is right.

MR. McALLISTER: I have no further questions.

MR. PAXSON: If the Commission please, again I move that this chart be rejected, upon the ground that it purports to contain data with respect to the Central Hudson Gas and Electric Company, the Pennsylvania Power and Light Company, the Philadelphia Electric Company, and the Metropolitan Edison Company, none of which is a party respondent to this proceeding, and any facts which they may have stated in any reports which they may file are not binding on the Jersey Central Power and Light Company. That

also applies to the Public Service Electric and Gas Company.

I also urge you that if, in any event, this Commission sees fit to receive this in evidence, the words at the top, "affecting the operations of the Jersey Central Power and Light Company", should be stricken, and the words "affecting interstate transfers" should be stricken in the legend below the middle of the chart—involving conclusions that have not been established.

EXAMINER SPENCER: Don't you think that the explanation that the witness has given in effect eliminates those words?

MR. PAXSON: No, Mr. Examiner. I am afraid that unconsciously or subconsciously they might influence someone's mind.

EXAMINER SPENCER: I see your point.

Have you any objection to amending the exhibit, Mr. McAllister?

MR. McALLISTER: I do have objection to amending the exhibit. The witness has clearly stated that this amount of energy was transmitted back and forth across the state lines exactly as he shows it there.

MR. PAXSON: It doesn't show anything affecting the operations of the Jersey Central Power and Light Company.

MR. McALLISTER: I am talking about the one at the bottom—"interchange of electric energy between the companies, affecting interstate transfers in 1935." He did not say those were the complete interstate transactions between those companies, but he said between these companies they are; and

they affect the interstate transactions of those companies. There may be a hundred others. But as to these companies he has shown exactly what they are, and he has taken the figures of the companies that the companies report themselves.

Going to the top of the chart, he shows the transactions between the State of New Jersey and the State of New York. With respect to the thing up there, "electric energy transactions between utilities affecting the operations", he did not say that they were the only ones, but there he says they affect the operations of the Jersey Central Power and Light Company.

And he has stated how they have, by reason of this inter-relation between the companies, which is shown by the interchange of energy between them. That is the only showing he has attempted to make by this chart.

Now, so far as Mr. Paxson's having said he is not bound by these transactions with the Metropolitan Edison Company, that statement of figures there with the Metropolitan Edison Company, is the report of the New Jersey Power and Light Company in this case.

So far as the Central Hudson is concerned, at the top, that is the report of the respondent in this case, the New Jersey Power and Light Company, as filed with the Commission under oath and as contained in their annual report.

Likewise, as to the showing as to the quantity of energy interchanged with the Public Service Electric and Gas Company, the reports of that company as submitted to this Commission under oath show the transactions that are recorded on this chart.

Time and again in the course of this proceeding, Mr. Paxson, for the respondent, and the witnesses who have appeared for the respondent, have relied upon

the records of the Public Service Electric and Gas Company.

If we are to assume that only one person, the respondent, has access to those records and they are only correct when they are interpreted and read by the respondent, we are certainly placed in an anomalous situation. When the reports come in here to this Commission from any one of these companies they represent the transactions for a complete year, broken down in such detail so that they can be checked, and they are not broken-up bits of incidental information picked out by the examination of this, that, and the other document or record of a company. They are worthy of consideration beyond any isolated bit of information that may be taken from a report of a company, and they are so treated and so recognized.

MR. PAXSON: I do not recall that he offered anything from the records of the Public Service Electric and Gas Company. But I will stand on my objections.

EXAMINER SPENCER: Mr. Woll, you obtained the figures that you have on this chart from the reports of these various companies, did you not?

THE WITNESS: Yes, sir.

EXAMINER SPENCER: Let the objection be overruled, with an exception noted for counsel for respondent.

Let the chart be received for whatever it may be worth, as Commission Counsel's Exhibit No. 22.

(The document above refered to was received in evidence and marked Commission Counsel's Exhibit No. 22.)

EXAMINER SPENCER: You may proceed.

MR. McALLISTER: When Witness Sibley was on the stand, Mr. Examiner, he showed a remarkable lack of information and knowledge of the contract existing between Utility Management Corporation and New Jersey Power and Light Company, and between E. M. Gilbert Engineering Corporation and New Jersey Power and Light Company respecting the Management of the company and the control or authority exercised by E. M. Gilbert Engineering Corporation over construction work on New Jersey Power and Light Company.

I ask that the record in this case be supplemented and completed by the submission on the part of the respondent of the contract between that company and Utility Management Corporation and E. M. Gilbert Engineering Corporation.

That becomes important in this case because of the unwillingness on the part of the witness to state or his inability to state under what terms and conditions the E. M. Gilbert Engineering Corporation and Utility Management Corporation have a say in the manner in which the company operates.

At this time I ask that the record be completed in that respect by the submission on the part of the respondent of these contracts since they are directly within their possession. Otherwise it would be necessary for us to secure them through other means.

It is my contention, and I now assert the fact that those two contracts, which are admitted to be in existence, very materially affect the weight which may be given to Mr. Sibley's testimony, inasmuch as he stated that he was vice-president and chief electrical engineer of the E. M. Gilbert Engineering Corporation, which is a part of the Utility Management Corporation, according to his statement on the record.

MR. PAXSON: Mr. Examiner, I move that the scandalous and impertinent remarks made by Mr. McAllister, Counsel for the Commission with reference to Mr. Sibley's testimony, be stricken from this record. He has no right as counsel to stigmatize his evidence in any way. Mr. Sibley's evidence was that he was not familiar with the contract and had never seen it.

Mr. McAllister is not in a police court, and I think he should conduct himself—

MR. McALLISTER: You do not need to worry about being in a police court.

MR. PAXSON: Secondly, as representing the Jersey Central Power and Light Company I object to the offer, if he has made an offer, of this contract upon the ground the Jersey Central Power and Light Company is not a party thereto.

MR. McALLISTER: I said the New Jersey Power and Light Company.

MR. PAXSON: I know; but the Jersey Central Power and Light Company is a party here and has a right to interpose its objection to the introduction of any evidence on this record. They are not bound in any way thereby. The issue here is the status of the Jersey Central Power and Light Company.

On behalf of the New Jersey Power and Light Company I object to the offer of this contract in evidence, if there is an offer, upon the ground it has not been shown that it has any bearing on this case and is wholly irrelevant and immaterial.

EXAMINER SPENCER: Gentlemen, I take it that neither Counsel for the Commission nor Counsel for Respondent would for a moment be interested in acting otherwise than as reputable counsel usually act

in a proceeding; and any remarks made in argument by either one would not be construed and should not be construed as any reflection on anyone.

So far as the Examiner is concerned, he does not feel that the witness Sibley wilfully refused to answer any question that was addressed to him.

On the question of this contract, Mr. McAllister, between the New Jersey Power and Light Company and—What other company is it?

MR. McALLISTER: Utility Management Corporation and E. M. Gilbert Engineering Corporation.

EXAMINER SPENCER: And your contention is that that contract provides for service by the Utility Management Corporation to New Jersey Power and Light Company?

MR. McALLISTER: That is correct, Mr. Examiner; and, likewise, the E. M. Gilbert Engineering Corporation provides for service.

EXAMINER SPENCER: Are those two companies separate and distinct now?

MR. McALLISTER: Yes.

EXAMINER SPENCER: Wasn't there testimony to the effect that one had absorbed the other one?

MR. McALLISTER: No, sir.

MR. PAXSON: I thought there was such testimony.

MR. McALLISTER: No; there was not. What he said was that they are now within the control of Utility Mutual Management Association, which is an entirely different organization, as counsel well knows.

EXAMINER SPENCER: I don't recall that there was any evidence that this Management Com-

pany had a contract with the Jersey Central Power and Light Company, was there, Mr. McAllister?

MR. McALLISTER: There was.

EXAMINER SPENCER: There was to that effect?

MR. McALLISTER: I asked the question.

MR. PAXSON: The Jersey Central Power and Light Company, Mr. McAllister?

MR. McALLISTER: The New Jersey Power and Light Company.

EXAMINER SPENCER: I asked as to the Jersey Central Power and Light Company. I recall he said there was as to the New Jersey Power and Light Company, but not with the other one.

MR. McALLISTER: That is true.

EXAMINER SPENCER: The Examiner will request New Jersey Power and Light Company to submit copies of these contracts between the New Jersey Power and Light Company and the Management Company and the E. M. Gilbert Engineering Corporation.

Have you any more witnesses, Mr. McAllister?

MR. McALLISTER: I have no more witnesses. But there are a few corrections I would like to make in the record at this time.

EXAMINER SPENCER: Last Friday morning the Examiner stated that he would rule that any designated relevant and material matter embraced in the application filed by the New Jersey Power and and Light Company with the Securities and Exchange Commission, identified as its file 46-98, dupli-

cates 1 and 2, would be admitted in evidence upon motion of counsel for the Commission, and that he would undertake, by an examination of the application, to determine whether there are relevant and material matters contained therein in order that an intelligent ruling might be made.

It does not appear that there will be an opportunity to make a sufficient examination of the application before the hearing is concluded, upon which a ruling may be based.

If Counsel for the Commission now desires to indicate the matter contained in the application which he wishes to offer, upon a determination that the same is relevant and material, it will be admitted.

MR. McALLISTER: Mr. Examiner, I have explained at considerable length in the statements I made on the record heretofore the application that was filed by New Jersey Power and Light Company with the Securities and Exchange Commission sets forth in detail the corporate organization of the New Jersey Power and Light Company, relevant facts as to its operations and sphere of operations in the State of New Jersey, the characteristics of and facts relating to the Jersey Central Power and Light Company, its sphere of operations, general capacity, surplus generating capacity, the control of New Jersey Power and Light Company through MYPANJ Utilities Company, the control of Staten Island Edison Corporation indirectly through New York State Gas and Electric Company, the desire on the part of New Jersey Power and Light Company to acquire the stock of the Jersey Central Power and Light Company so that the operations of these systems might be unified under the subholding control of NYPANJ Utility Company, all within the Associated Gas and Electric System.

The report clearly sets forth the present operations and contemplated operations between these companies which are hoped to be realized through the acquisition of the balance of the Common stock of the Jersey Central Power and Light Company.

I read extensively from the reports the other day, and I am not going to undertake to read those portions which directly relate to the issues here. They pertain principally to the availability of excess generating capacity of the Jersey Central Power and Light Company, which is a matter which has been variously referred to on the record in this case.

Take also the part I read from the other day, which also made reference to the ability of the New Jersey Power and Light Company to unify the operations in such fashion that these three subsidiaries, as they will be if the stock of the Jersey Central Power and Light Company is acquired by New Jersey Power and Light Company, are units or will be units of NYPANJ Utility Company; and the excess generating capacity of Jersey Central Power and Light Company made available to the New Jersey Power and Light Company through the construction of additional transmission lines between such properties, and that such generating capacity of Jersey Central Power and Light Company will be made available to Staten Island Edison Corporation, as contemplated by or as stated by the applications, through the construction of a transmission line from the property of the Jersey Central Power and Light Company at South Amboy, New Jersey, to the Staten Island Edison Corporation across the intervening Kill Van Kull, the body of water separating the State of New Jersey from the State of New York.

EXAMINER SPENCER: At what parts of the application do you find those things?

MR. McALLISTER: They are scattered all the way through.

EXAMINER SPENCER: I will determine now that it is relevant and will be admitted if you designate the parts.

MR. McALLISTER: I said I was asking that the application and the amended applications—

EXAMINER SPENCER: Now, let me understand it. They filed an application and, as I understand it, the application consists of all the exhibits, which would include copies of mortgage indentures and such as that, wouldn't it?

MR. McALLISTER: I stated specifically at the time I offered—

EXAMINER SPENCER: I am asking you now to state it for the record.

MR. McALLISTER: —that those indentures could be eliminated from my offer, so the record will not include those indentures.

I can check right through it and eliminate all I have. Those particular ones I am excluding I can check through and eliminate by number.

EXAMINER SPENCER: The ones that you are excluding, you say?

MR. McALLISTER: Yes.

EXAMINER SPENCER: Is that easier than designating the ones you include?

MR. McALLISTER: Yes.

EXAMINER SPENCER: Then, you may proceed.

MR. McALLISTER: That is the indenture securing the first mortgage bonds of the New Jersey Northern Gas Company, shown as Exhibit No. 2 in the application. The indenture is dated March 1, 1912.

Certificate of incorporation of Jersey Central Power and Light Company, with amendments, to August 1, 1931. That is identified in the record as Exhibit J-C-1.

Copy of by-laws of Jersey Central Power and Light Company, identified in the record in that case as exhibit J-C-2.

Indentures of Jersey Central Power and Light Company, identified in the record as Exhibit J-C-4.

With respect to amendment No. 3 to this application as filed on May 13, 1938 and amendment No. 4 to the application, filed at some time subsequent to May 20, 1938, the stamp is not shown as to the date it was received; but that is the date upon which the signature of the officer of the New Jersey Power and Light Company acknowledged the execution of a supplement.

As to those I am not asking that they be made a part of the record. They may be entirely excluded, with one exception, and that is the annual report of the company in 1935, which sets forth the arrangement under which the New Jersey Power & Light Company acquired certain stock in the Utilities Mutual Management Association, Inc.

Upon the filing of these contracts that I requested this afternoon with respect to the contract with Utility Management Corporation and E. M. Gilbert Engineering Corporation, then all reference to that part of the application on file with the Securities and Exchange Commission as set forth in amendments 3

and 4 to that application may go out; and I make no reference to it.

EXAMINER SPENCER: Let the record show that the motion of Commission's counsel that the parts of the application filed with the Securities and Exchange Commission by the New Jersey Power and Light Company designed by him is granted and the parts are admitted in evidence by reference.

MR. PAXSON: I wish to note an exception to the Examiner's ruling.

I also wish it noted on the record that this exhibit was introduced and admitted to be introduced subsequent to the time when respondents put in their case and constitutes new matter.

The rambling, rather incoherent statement of Counsel for the Commission indicates it has no relevancy here because it applies to things in future. The issue is a new issue to be decided by the Securities and Exchange Commission, or it is an issue to be decided by the Securities and Exchange Commission, and it is the opinion of respondent that the admission of this matter constitutes in effect a denial of due process and a denial of a fair hearing.

We haven't seen what is in it; we don't know what is in it, and we have no opportunity to be prepared to meet it if there are contained in it any conclusions or assumptions or statements of fact. It is not a public record. A public record is a record which is required to be kept by a public official in the performance of his duties and is one which is required to be kept by law, such as birth certificates, death certificates, deeds, and so on. It is in sense binding upon the Jersey Central Power and Light Company.

EXAMINER SPENCER: At this time, gentlemen, we will recess for five minutes.

(Whereupon, a short recess was taken, after which the following occurred:)

EXAMINER SPENCER: With respect to the admission of parts of the application in evidence, just referred to, it may be observed that this is an application that was made and verified and filed by respondent in this action.

MR. PAXSON: Will you name the respondent? There are two of them.

EXAMINER SPENCER: When I say "respondent", I mean the New Jersey Power and Light Company.

That notice of the motion and offer was given several days ago. And administrative officers are not bound by the common law rules of evidence or any statutory rules. The main thing the Commission is interested in is in obtaining facts. If there are statements in that sworn application which bear upon the issues in this case, the Examiner feels it is proper that the Commission should have the advantage of knowing those facts in order to arrive at a just conclusion. And inasmuch as there has been no surprise and nothing to deprive respondent of any right he may have so far as his objections are concerned and so far as his examinations are concerned, and inasmuch as respondent may now, since it has been admitted, on surrebuttal introduce such evidence as he may deem necessary, the Examiner feels that the admission of the application, with the exceptions noted, is quite proper.

Now, Mr. Paxson, do you wish to go into that matter any further as to the question of the application before introducing any evidence?

MR. PAXSON: I wish to take an exception and to be allowed to reiterate that this was offered and

its admission granted subsequent to the time our case was in.

I have no means of knowing for what purpose it may be used or employed, when it is an application containing lots of language which I have never seen. It is not in evidence at all. It is not a public record and there is nothing to rebut at this time. I don't know to what use it may be put, and I still state I believe this constitutes a denial of the right of a fair hearing and opportunity to be heard on that matter. It is impossible to put in rebuttal testimony when we see a file go in evidence by reference. We don't know what it contains. It has not been testified to. We don't know what is in it. There is nothing to rebut now. It raises a new issue, in my judgment, and new matter.

MR. McALLISTER: May I be heard on that at this time, Mr. Examiner?

EXAMINER SPENCER: Yes.

MR. McALLISTER: So far as respondent is concerned, New Jersey Power and Light Company, which filed that application, is the same party that appears here in this case.

EXAMINER SPENCER: Yes. I just so stated.

MR. McALLISTER: So far as Mr. Paxson is concerned, he is counsel here. Whether he is counsel over there or not I don't know. But the respondent knows. It is particularly significant that the respondent has not appeared here by any officer whatsoever.

I want to say also that I apprised Mr. Paxson of the fact that I intended to offer this application days before my case was completed, that I did offer it in

the first instance before Mr. Paxson was called upon to in any way put on his case in chief. And I repeated that request at various times during the course of this proceeding. And the record will show unquestionably that I have not been dilatory, so far as the offer is concerned.

Not only that, Mr. Examiner, but I am surprised to have the respondent come in here and say that they do not know, that they have not had an opportunity to rebut it. It is their sworn statement. I assume it is correct.

Respondent knows better than I do. Respondent knows whether or not it is correct. And I am only asking them to stand by that to which they have sworn, or otherwise correct it.

EXAMINER SPENCER: Let the record show that an exception is granted to respondent's counsel, to the ruling that the application be admitted.

You may proceed, Mr. McAllister.

MR. McALLISTER: May I speak off the record at this time, Mr. Examiner?

EXAMINER SPENCER: Off the record, please.

(Thereupon, an off-record discussion occurred which the Reporter was directed not to record, after which the following occurred.)

EXAMINER SPENCER: On the record. Mr. Grimsley, will you take the stand?

Whereupon

A. H. GRIMSLEY,

a witness recalled by and on behalf of the Federal Power Commission, having been previously sworn, was examined and testified as follows:

Redirect Examination

BY MR. McALLISTER:

Q. Mr. Grimsley, I ask you to read the question that is indicated there, and the answer as it appears in the record and state whether or not your answer is properly recorded. I have reference to page 307 of the record.

A. My statement there it is not a mere presumption. Abstract mathematics prove it.

MR. PAXSON: I agree with you.

EXAMINER SPENCER: Gentlemen, let the record show that counsel will make such typographical corrections in the record as they find and deem necessary and submit those corrections. If they agree, I will approve the corrections and they will be made a part of the record and the corrections may be made in the record, and if you gentlemen don't agree we will have to have a hearing on them.

Do you have anything further, Mr. McAllister?

MR. McALLISTER: No, sir.

(Witness excused.)

EXAMINER SPENCER: Anything further, Mr. Paxson?

MR. PAXSON: Nothing further.

EXAMINER SPENCER: You have nothing further, Mr. McAllister?

MR. McALLISTER: I have nothing further.

EXAMINER SPENCER: Let the record show that all supplements to exhibits, additional compilations or other documents be filed as heretofore directed or agreed upon by counsel for respondent and counsel for the Commission, be filed with the Commission on or before the 20th of October, 1938.

Let the record show that counsel for respondent is allowed until November 15, 1938, in which to file his brief and counsel for intervenor, if he desires to file a brief is allowed until November 15, 1938.

MR. PAXSON: Doesn't counsel for the Commission file a brief?

EXAMINER SPENCER: Under the practice they do not exchange briefs.

MR. PAXSON: Isn't this a new rule?

EXAMINER SPENCER: Under our present procedure counsel for the Commission doesn't file a brief.

MR. PAXSON: Then we have no opportunity to know what the issues are.

EXAMINER SPENCER: Off the record.

(Discussion off the record.)

EXAMINER SPENCER: On the record.

MR. McALLISTER: I merely want to note on the record that I desire an opportunity to file a brief.

EXAMINER SPENCER: Mr. Paxson, perhaps I can facilitate the matter. Suppose we let the record show, or rather do you agree, Mr. Paxson, that the matter of filing briefs may be left open for a period not exceeding ten days and you will be advised by letter as to what will be required?

MR. PAXSON: That I will be advised?

EXAMINER SPENCER: Yes, as to filing briefs.

MR. PAXSON: I think we ought to have a minimum until the 15th of November.

EXAMINER SPENCER: We will extend that ten days.

MR. PAXSON: This Commission would certainly want all the inforamtion it could get. I think it is a matter that merits serious consideration.

EXAMINER SPENCER: Off the record.

(Discussion off the record.)

EXAMINER SPENCER: On the record. The question I asked you was would you agree that the matter of filing briefs be left open at this time and that you be notified within ten days as to what will be required with respect to filing briefs and serving briefs and the time will be extended from the 15th to the 25th of November.

MR. PAXSON: That is quite all right.

EXAMINER SPENCER: All right, let the record show.

MR. McALLISTER: I am interested in hearing Mr. Paxson admit on the record that the contention he has made throughout is changed and the Commission is entitled to all the facts.

MR. PAXSON: I thought I was talking off the record but you, as usual have misundersfood me.

EXAMINER SPENCER: Is there anything further from either attorney? (After a pause.) Let the record show the hearing is concluded at 3:30 p. m.

(Whereupon, at 3:30 o'clock p. m., the hearing in the above entitled matter was concluded.)

CORRECTIONS TO BE MADE IN THE STENOGRAPHIC RECORD

It is hereby stipulated and agreed that the following corrections shall be made in the stenographic record of proceedings taken at the hearing of the above matter as recorded by the official reporter:

Page	*Line*	Correction
10	15	Change term "no doubt" to read "any doubt".
15	2	Insert "my" just preceding word "education".
15(a)	1	Change first word "in" to "from".
	11	Change word "in" to "from".
17	15	Insert "map" after the word "this".
18	18) 19) 20)	Correct to read ". . . Jersey Central Power and Light Company generates electric energy and serves the area indicated . . .".
24	19	Change word "capacity" to read "capability".
25	2	Insert word "system" after the word "power".
27	13) 14)	Correct to read ". . . plants in 1937 was about 366,000,000 kilowatt hours".
28	2	Change word "sold" to "out put".
	15	Change words "public service" to "Public Service".
30	6	Insert the word "in" just before the word "the".
31	7	"Receives" should read "received".
	13	The period in this line should be changed to a dash because the balance of the sentence is to be found on page 32, line 20. The dash at the end of the next line (page 32, line 21) should be changed to a period.

Page	*Line*	Correction
44	24	Insert the words "the exhibit" before the word "which" and eliminate the words "the paper" in the next following line.
46	13	Substitute the words "continuous service" for the word "continuing".
46	16	Insert the words "by New Jersey Power & Light Company" after the word "served".
49	22	Change the word "way" to "say".
50	3	Change the word "kilowatts" to read "kilowatt-hours".
	15	Insert the word "the" after the word "that".
52	25	Change the word "kilowatts" to read "kilowatt-hours".
56	23	Insert a comma (,) after the word "kilowatts".
60	21	Change the words "page 23" to read "page 28".
	26	Change symbols "KV" to read "KW" (two changes).
61	3	Change symbol "KV" to "KVA".
81	2	Insert after word "page" the figure "5".
82	14	Insert quotation marks after word "interconnection".
	15	Eliminate quotation marks preceding the word "therefore".
	17	Eliminate quotation marks after the word "Substation".
	22	Eliminate the word "entirely" and substitute the words "in parallel" so that this line will read "in parallel or in synchronism".
91	10	Change "kilowatts" to read "kilowatt-hours".
93	18	Change words "Long Island" to read "Staten Island".
96	25	Eliminate the word "Penn".
132	3	Substitute the word "that" for the word "there".

Page	*Line*	CORRECTION
134	23	Substitute the word "the" for the word "they".
136	16	Insert period after word "marked" and capitalize word "when" to read "When".
136	18	Eliminate word "and".
137	9	Correct "impedences" to "impedances".
138	10	Correct "impedences" to "impedances".
140	17	The word "calculated" to be enclosed in parentheses.
144	3	Substitute word "and" for word "or".
	4	Change word "here" to read "were".
145	19	Omit word "to".
146	21	Change the word "at" to "from".
148	9	Change "Exhibit No. 1" to read "Exhibit No. 16"
149	2	Insert word "through" after word "Company".
	5	Insert words "Substation of" after word "Atlantic".
	17	Change word "accepted" to word "admitted".
153	6	Change word "objection" to word "exception".
167	12	Correct the word "compedances" to word "impedances".
170	14	Substitute "Elizabethport" for "Elizabeth".
171	16	Change "sa" to "was".
197	11	Change word "our" to "my".
198	7	Substitute "while you were" to "why you are".
205	14	Correct "Brimsley" to "Grimsley".
211	4	Insert "in mind" after word "contracts".
	15)	Correct to read "as one part of this agreement
	16)	between the Pennsylvania Power and Light

Page	*Line*	CORRECTION
	17)	Company, Public Service Electric and Gas Company, and Philadelphia Electric Company interconnection operating arrangements . . . ."
217	8	Change word "Not" to read "Now".
223	20	Change "of" to "or".
	21	Change "operation" to "output".
225	7	Substitute the words "on the" for the word "or".
243	13	Eliminate the word "joint".
245	19	Insert the word "systems" after the word "major".
247	7	Eliminate the word "on".
	8	Insert the word "New" before the word "Jersey".
256	1	Insert symbol "KV" after figures "66".
	3)	Insert symbol "KV" after figures "66".
	4)	
258	19	Substitute the word "with" for the word "of".
	20	Correct word "powe" to read "power".
262	19	Change the word "what" to read "want".
267	2)	Change the word "steps" to read "step".
	11)	
	25	Change the word "are" to read "area".
268	8	Change the word "or" to read "of".
272	9	Change the word "and" to read "or".
	20	Insert the word "New" after the word "by".
289	8	Insert the word "at" after the word "identified".
	9	Eliminate the word "for" after the word "point".
290	10	Substitute the word "outside" for the word "out" and insert after the word "state" the words "or deliver energy".
295	9	Eliminate the words "economy power".

Page	*Line*	Correction
300	18	Insert the word "a" after the word "that".
307	19	Change sentence to read "It is not a mere presumption".
308	9	Change the word "at" to "in", and insert after the word "record" the word "as".
	18	Insert the symbol "KW" after the figures "10,000".
315	8	Change the word "for" to read "with".
	17	Change the word "it" to read "you".
317	2	Correct the sentence to show "Exhibit 6" instead of "Exhibit B-6".
318	4	Correct the sentence to show "Exhibit 6" instead of "Exhibit B-6".
324	7	Change "cheaper cost" to read "lower costs".
327	17	Change the word "misunderstand" to read "misunderstanding".
330	15	Change the word "iw" to read "it".
	21) 22) 23)	Correct answer to read "I do not believe that the Public Service Electric and Gas Company would shut down its Perth Amboy Plant without this connection".
331	13	Change the word "Kerney" to read "Kearney".
334	18	Insert the word "go" after the word "we".
337	8	Insert the word "not" after the word "ought".
489	23	Change "Richmond Plant" to "Livingston Plant".
495	3) 4)	Change "33,000 one-circuits" to read "33,000 volt circuits".
515	23	Change the word "operating" to read "generating".
521	25	Change "difference" to read "distance".
522	10	Change "Mechanic Street Substation" to read "Atlantic Substation".

Page	*Line*	CORRECTION
547	19) 22) 23)	In each line change "kilowatts" to read "kilowatt-hours".
592	2	Substitute the words "it grew up" for the "to operate".
	16	Change the word "difference" to read "different".
603	6	Change this line to read: "Will you please explain" instead of "Will you please examine".
638	10	Eliminate the word "it" after the word "and".
691	16	Change the word "instance" to read "instant".
728	3	Eliminate the word "in".
731	13	Change the word "it" to read "is".
743	19	Change the word "barring" to "regarding".
797	19	Change the word "know" to read "knows".
814	11	Change the word "relative" to read "relatively".
826	22) 23)	Change "New Jersey Power and Light Company" to read "Jersey Central Power and Light Company".
840	13	Change "it" to read "its".
851	9	Change the word "when" to read "them".
859	12	Change this line to read "is indeterminate" instead of "us undetermined".
867	16	Change "that" to read "and".
868	16	Change the word "rephase" to read "three-phase".
878	23) 24)	Change to read: "A witness recalled for and on behalf of the Federal Power Commission".
883	13	Change the word "what" to read "where".
887	1	Change the word "and" to read "in".

Page	*Line*	CORRECTION
889	12	Change the word "contruct" to read "construct".
902	10	Change the word "required" to read "require".
891	2	Change the word "reply" to "rely".
903	5) 6) 7)	Change the words "from Public Service Electric and Gas Company to Jersey Central Power and Light Company" to read: "from Jersey Central Power and Light Company to Public Service Electric and Gas Company".
926	25	Change the word "is" to read "are".
983	9	Insert the word "which" after the word "from".
1010	16	Change the word "flowing" to read "slowing".
1017	23	Change the words "it is" to read "is it".
1043	16	Change "abruft" to read "abrupt".
1047	11) 12)	Eliminate the words "and the manipulation of governors by the operator".
1072	11	Insert the word "you" after the word "with".
1086	2	Change the word "laymay" to read "layman".
1108	18	Change the words "turbo driven alternates" to read "turbo driven alternators".

Joseph F. Autenreith,
Counsel for Intervenor
Robert B. Weston,
Counsel for Respondent
Lambert McAllister,
Counsel for Federal Power Commission.

Approved except item on page 4 second from bottom. This item will not be changed. The official transcript will be corrected accordingly.

Carroll B. Spencer,
Examiner.

Jan. 9, 1939.

CORRECTIONS IN THE STENOGRAPHIC RECORD

It is hereby stipulated and agreed that the following corrections shall be made in the stenographic record of proceedings taken on the hearing of the above case as recorded by the official reporter:

Page	*Line*	Correction
21	3	"compiled": change to "complied".
29	9	"My theory is the company may be subject to the law at one time, it was not subject to it in 1934.": change to "My theory is that if the company was subject to the law at any time, it was not subject to it in 1934."
31	16	"our": change to "how".
34	11	"obstructious": change to "obstructionist".
35	25 & 26	". . . and when I say the switch is open, no electricity can flow over it": change to ". . . and when I say the switch is open I mean no electricity can flow over it . . ."
224	7	"The meter or delivery of power . . .": change to "The meter for delivery of power . . ."
224	10	"One hour meters.": change to "Watt hour meters."
237	23 et seq.	"Are you familiar with the Atlantic and and Light Street Substation . . .": change to "Are you familiar with the Atlantic Street Substation . . ."

Page	*Line*	CORRECTION
248	22	". . . look at the map and look at a line between . . .": change to ". . . look at the map and look at the line between . . ."
260	6	"interconnection": change to "interconnected".
274	25	"plan": change to "plant".
331	6	"Isn't there a great deal of excess capacity rate . . .": change to "Isn't there a great deal of excess capacity right . . ."
331	12	"Kerney": change to "Kearny".
352	23	"Then it continues on hour pools for about three-quarters of a mile . . .": change to "Then it continues on our poles for about three-quarters of a mile . . ."
354	3	"New Lison": change to "New Lisbon".
362	13	". . . if we can introduce the Public Service . . .": change to "if we can induce the Public Service . . ."
369	7	". . . in watering, so to speak, power from Jersey Central . . .": change to ". . . in ordering, so to speak, power from Jersey Central . . ."
375	12	"New Libson": change to "New Lisbon".
375	17	"Croners?": change to "Corners?"
393	13 et seq.	"A thousand would produce roughly one and three times that.": change to "A thousand would produce roughly one and three-tenths times that."
402	2	"Vergal": change to "verbal".
418	21	"I do not the turbines runnings would always be in excess . . .": change to "I do not believe that the turbines running would always be in excess . . ."
435	11	"Clarksburg, West Virginia.": change to "Clarksville, Tennessee."

Page	*Line*	Correction
439	16	"Consulting engineer and assistant in charge of operations.": change to "Consulting engineer and in charge of operations."
440	3 & 4	". . . Bachelor of Science and Electrical Engineering.": change to ". . . Bachelor of Science in Electrical Engineering."
441	4 & 5	". . . I was assigned to Battleship Arizona and Electrical Officer.": change to ". . . I was assigned to the Battleship Arizona as Electrical Officer."
442	22	"Killvan's Cull": Change to "Kill van Kull."
462	15	"His instructions are as far as I know ": change to "His instructions are, and as far as I know, . . ."
470	9	"We try to find an averagg instrument cost.": change to "We try to find an average increment cost."
470	21	"have": change to "has".
489	13	"Let the records show.": change to "Let the record so show."
490	5	". . . The Richmond plant": change to ". . . the Livingston plant . . ."
491	2	"We maintain the one at Livingston, Arlington, . . .": "We maintain the ones at Livingston, Arlington . . ."
493	11	". . . the routes off of . . .": change to ". . . the routes of . . ."
502	1	". . . because we have had other customers in the past.": change to ". . . because we have considered having other customers in the past."
511	20	"Up to 20,000 was can do it, . . .": change to "Up to 20,000 we can do it, . . ."
512	17	". . . and I going . . .": change to ". . . and I am going . . ."

IX.

DETERMINATION BY THE COMMISSION

(Entered July 18, 1939)

It appearing to the Commission that:

(a) On June 7, 1938, the Commission issued its show cause order directing New Jersey Power & Light Company to submit in writing, under oath, detailed information concerning its reported acquisition of 341,350 shares of the common stock of Jersey Central Power & Light Company in apparent violation of Section 203(a) of the Federal Power Act, and to show cause if any there be, why the Commission should not proceed to enforce the provisions of the Federal Power Act; that New Jersey Power & Light Company made due return to the show cause order, denying that Jersey Central Power & Light Company was a "public utility" as defined by the Federal Power Act, and asserting that no approval of the Federal Power Commission was required by law in the acquisition by respondent, New Jersey Power & Light Company, of the 341,350 shares of common capital stock of Jersey Central Power & Light Company; that respondent, by acquiring such stock had not violated section 203(a) or any other provisions of the Federal Power Act;

(b) The Commission, on July 5, 1938, instituted an investigation to determine all facts, conditions, practices, and matters relating to the transaction whereby the respondent, New Jersey Power & Light Company, on March 14, 1938, acquired 341,350 shares of the common capital stock of Jersey Central Power & Light Company, and assigned all such matters for

public hearing on August 29, 1938, to determine whether the acquisition by New Jersey Power & Light Company of certain shares of the common capital stock of Jersey Central Power & Light Company, on March 14, 1938, constituted the purchase, acquisition, or taking by a public utility of any security of any other public utility within the meaning of Section 203(a) of the Federal Power Act, as well as all facts pertaining to any other issue raised by the order to show cause theretofore issued and the return thereto by New Jersey Power & Light Company;

(c) Hearing upon the matters specified in the order of the Commission under date of July 5, 1938, was duly postponed to September 27, 1938; public hearing began on September 27, 1938, and was concluded on October 10, 1938; New Jersey Power & Light Company, respondent, appeared by counsel and Jersey Central Power & Light Company appeared as intervener and was represented by counsel; respondent and intervener were given full opportunity to be heard, to present evidence and testimony, to cross-examine witnesses, and submit briefs in support of their various contentions;

(d) The Commission having carefully reviewed all testimony and evidence adduced at the hearing on the matters and issues presented in this cause, and having carefully considered the briefs filed by the respondent, the intervener, and counsel for the Commission;

The Commission *finds* that:

(1) Jersey Central Power & Light Company owns and operates transmission facilities extending from its substation adjacent to its generating plant in South Amboy, New Jersey, to the south bank of the Raritan River where such transmission facilities

are joined to the transmission facilities of Public Service Electric and Gas Company; that such transmission facilities of Public Service Electric and Gas Company extend from the south bank of the Raritan River in said State to Mechanic Street substation of the Public Service Electric and Gas Company located at Perth Amboy, New Jersey; that such transmission facilities of the above-named companies are utilized for the transmission of electric energy in both directions between Mechanic Street substation and the substation of Jersey Central Power & Light Company adjacent to its generating plant in South Amboy; that such transmission facilities at Mechanic Street substation are connected directly and at all times with a common bus bar in the Mechanic Street substation; that normally electric energy passes over such transmission facilities daily in both directions between the points specified;

(2) Public Service Electric and Gas Company owns transmission facilities extending eastwardly from Mechanic Street substation to the mid-channel of Kill van Kull, a navigable body of water separating the State of New Jersey from Staten Island, New York; that such transmission facilities are joined at the mid-channel of Kill van Kul with transmission facilities of Staten Island Edison Corporation, which facilities extend from the point of connection to Atlantic substation of the Staten Island Edison Corporation located on Staten Island in the State of New York; that such transmission facilities of Public Service Electric and Gas Company and Staten Island Edison Corporation are attached to the same common bus bar at Mechanic Street substation to which is attached the transmission facilities of Jersey Central Power & Light Company and Public Service Electric and Gas Company, extending from Mechanic Street substation to South Amboy, New Jersey; that normally electric energy is trans-

mitted daily in both directions over the transmission facilities of Public Service Electric and Gas Company and Staten Island Edison Corporation between Atlantic substation and Mechanic Street substation; that the transmission facilities described provide a direct and interconnected line for the flow of electric energy between the substation of Jersey Central Power & Light Company located adjacent to its generating plant in South Amboy and Atlantic substation of Staten Island Edison Corporation on Staten Island in the State of New York, via Mechanic Street substation, and electric energy was transmitted over such transmission facilities between such points via Mechanic Street substation on numerous occasions during certain days and almost daily throughout 1936, 1937, and to September 1938; that there is no evidence or testimony of any change in such operations during this period or subsequent thereto; that electric energy transmitted over facilities extending from the substation adjacent to the generating plant of Jersey Central Power & Light Company in South Amboy, New Jersey to Atlantic substation, on Staten Island, in the State of New York, via Mechanic Street substation, is generated in the State of New Jersey and consumed in the State of New York; that electric energy transmitted from Atlantic Street substation to the substation of Jersey Central Power & Light Company in South Amboy, New Jersey, via Mechanic Street substation, is generated in the State of New York and consumed in the State of New Jersey;

(3) The transmission facilities owned and operated by Jersey Central Power & Light Company extending from its substation adjacent to its generating plant in South Amboy, New Jersey, to the south bank of the Raritan River in said State are transmission facilities utilized for the transmission of electric en-

Page	*Line*	Correction
517	11 & 12	"A good plant and good lines are better than a power plant . . .": change to "A good plant and good lines are better than a poor plant . . ."
517	15	"power plant": change to "poor plant, . . ."
518	3	". . . dependability of the past . . .": change to ". . . dependability in the past . . ."
521	22	"Killvan's Cull": change to "Kill van Kull."
522	8	"There is about 2,800 feet . . .": change to "There is about 2,800 feet . . ."
522	16	". . . 13 or 14 KVA . . .": change to ". . . 13,000 or 14,000 KVA. . . ."
525	16	Add a comma after "time".
	17	Add a comma after "open".
531	7	"It naturally would provide in some proportion . . .": change to "It naturally would divide in some proportion . . ."
535	25	"controlled": change to "control".
538	7	"of": change to "or".
539	21	"airbrake": change to "airbreak".
542	11	"which were getting": change to "which was getting . . ."
542	24	"unti": change to "unit".
543	5 & 6	Change answer to "I didn't understand that the energy would come from that particular generator."
551	16	". . . . it would affect us vitally." ". . . . it would not affect us vitally."
566	7	"electricity": change to "energy".
599	10, 11, 12	Delete.
614	2	Question mark instead of period.
634	12	"Killvane Cull": change to "Kill van Kull".
650	2	"Take into consideration any . . .": change to "Take into consideration in . . ."

Page	*Line*	CORRECTION
654	9	"many": change to "made".
656	14	"Killvan Cull": change to "Kill van Kull".
662	15	"general gas": change to "General Gas".
664	11	"Company direct": change to "Company to direct".
664	20	"to": change to "of".
666	24	"airbrake": change to "airbreak".
667	7	"set": change to "such".
668	19	"identify": change to "identity".
669	11	"affected": change to "effected".
670	15	"causing": change to "caused by".
677	11	"or": change to "at".
680	1	Add "it" at right end of the line.
680	2	Add comma after word "not".
680	2	"flow": change to "flowing".
688	5	"gigsaw": change to "jigsaw".
691	5	"excess": change to "case".
695	19	"Or they . . .": change to "Are they . . ."
696	1	"furnished by": change to "furnished to".
698	18	"226 KV lines": change to "two 26 KV lines".
704	5	"general cable": change to "General Cable".
705	13	"They are": change to "There are".
707	7	"general cable": change to "General Cable".
709	6	Delete word "cross".
727	9	"constance": change to "constants".
733	2	"Raitan": change to "Raritan".
734	7	"airbrake": change to "airbreak".
741	22	"car": change to "power".
744	10	"car": change to "power".
756	16	"interval": change to "integral".
770	23	"the least": change to "at least".
773	15	"I imagine that would be . . .": change to "I imagine they would be . . ."
774	5	"Jersen": change to "Jersey".
779	20	words "electrical for" should be omitted.

Page	*Line*	CORRECTION
779	22	". . . and that is handled . . .": change to ". . . and that was handled . . ."
781	21	"such a": change to "such as".
783	11 & 13	"NYPANG": change to "NYPANJ".
784	11	"NYPANG": change to "NYPANJ".
789	1	"than": change to "they".
793	16	"can this have to do": change to "can this have in relation to".
797	11	"so": change to "do".
811	23	"numberator": change to "numerator".
841	3	"0.82": change to "8200".
841	6	"0.84": change to "8400".
841	9	"0.84": change to "8400".
841	18	"0.84": change to "8400".
850	23	"asumed": change to "assumed".
859	12	"us": change to "is".
862	6	"has": change to "as".
872	25	"at": change to "that".
902	17	"It if": change to "It is".
921	23	"charge": change to "chart".
936	4	"mess": change to "mass".
945	5	"relates": change to "relate".
948	19	"of": change to "the".
949	3	"two": change to "to".
953	25	"ad-": change to "admitted".
975	8	"ehxibit": change to "exhibit".
988	21	"and Electrical": change to "in Electrical".
990	15	"design of minor": change to "design and minor".
992	1	"nane": change to "name".
992	12	"Light": change to "Irrigation".
993	22	"devising": change to "advanced".
994	24	"Killvan Cull": change to "Kill van Kull".
995	15	"was": change to "has".
1000	20	"voltage": change to "load".

Page	*Line*	CORRECTION
1002	12	Delete "from Jersey Central Power & Light Company to that substation".
1007	22	"compilation": change to "computation" and "trenchant": change to "transient".
1016	17	"and": change to "an".
1018	24	"excess": change to "increased".
1029	12	"month": change to "must".
1029	15	"mumerical": change to "numerical".
1043	16	"abruft": change to "abrupt".
1045	3	"abruft": change to "abrupt".
1046	15	"abruft": change to "abrupt".
1053	17	"critidizing": change to criticizing".
1053	19	"We might have worse if I tried it": change to "We might be worse off if I tried it".
1077	6	"where": change to "were".
1080	11 & 12	both "impedences": change to "impedances".
1080	23	"abruft": change to "abrupt".
1086	2	"incomprehensive": change to "incomprehensible" and "laymay": change to "layman".
1089	3	"amoung": change to "amount".
1093	2	"second": change to "seconds".
1099	3	Delete one "taking".
1106	25	"a curve": change to "occur".
1107	3	"adopt": change to "adapt".
1108	9	"stead": change to "steady".
1110	23	"interrupt you"; change to "interpret you".
1112	24	"of": change to "or".
1113	11	Question mark instead of period.
1114	2	"opwning": change to "opening".
1114	17	"quantity": change to "quality".
1114	15	"minutely": change to "minute".
1115	14	"minutely": change to "minute".
1115	17	"quantity": change to "quality".
1115	22	"operataor": change to "operator".

Page	*Line*	Correction
1116	3	"minutely": change to "minute".
1116	7	"quantity": change to "quality".
1117	9	"to": change to "of".
1118	8	"I don't think is what you mean,": change to "I don't think that is what you mean,".
1121	10	"that the steam": change to "that when the steam".
1121	11	"return": change to "returns".
1121	18	"steam rate"; change to "system load".
1121	24	"machine": change to "machines".
1123	3	"only": change to "on the".
1123	3	"of": change to "or".
1123	10	"of geographic": change to "or geographic".
1124	11	"not"; change to "no".
1126	3	"necessary": change to "unnecessary".
1135	7	". . . if that is the chart to which you prepared . . .": change to ". . . if that is the chart which you prepared . . .".
1148	4	"purport": change to "purports".
1150	21	"reacing": change to "reading".
1159	8	"Public Service and Electric Company": change to "Public Service Electric & Gas Company".
1162	1	"ofject": change to "object".
1166	22 & 23	"Kil von Kul": change to "Kill van Kull".
1172	4	"goes": change to "go".
1175	10	"agree": change to "agreed".
1175	23	"does't": change to "doesn't".

Lamont McAllister,
Counsel for Commission.
Joseph H. Autenreith,
Counsel for Intervenor.

C. Edward Paxson,
Robert M. Weston,
Counsel for Respondent.
By Robert M. Weston.

(Handwritten):

Approved except item on page 3, ninth from bottom of page. This item will not be changed. The official transcript will be corrected accordingly.

Carroll B. Spencer,
Examiner.

Jan. 9, 1939.

CORRECTIONS IN THE TRANSCRIPT OF THE RECORD OF THE HEARING IN DOCKET NO. IT-5518, NEW JERSEY POWER & LIGHT COMPANY AND JERSEY CENTRAL POWER & LIGHT COMPANY

The following corrections in the transcript of the above case are made:

Page 11, 6th line from the bottom, strike out the word "proper" and insert "in apt time".

Page 17, last line, strike out the word "will" and insert the word "may".

Page 29, strike out the last two lines and insert, "The Examiner can understand that figures for 1934 may have some bearing upon the receipts", and change the word "for" in the first line on page 30 to "in".

Page 30, 10th line from the bottom, correct the statement of the Examiner to read as follows: "I have not taken notice of the fact that this is a public utility. It is a question of fact as to whether it is a public utility within

the meaning of the Federal Power Act and referring to it as a public utility will not within itself denominate it a public utility within the meaning of the Federal Power Act".

Page 35, 1st line, insert after the first word "has", the words "is that".

Page 35, 3d line, after the word "statement", insert the word "that".

Page 42, 3d line from the last, place the words "will be established later" in quotation marks.

Page 45, insert the word "so" after the word "record" in the second remark by the Examiner, so that the statement will read, "Let the record so show".

Page 101, 8th line from the last, change the word "shall" to "will".

Page 104, 14th line, change the word "to" to "for".

Page 153, 6th line, strike out the word "objection" and insert the word "exception".

Page 190, 15th line, strike out the word "if" appearing between the words "that" and "it" and insert the word "might" between the words "it" and "be".

Page 387, 2nd line of Examiner's first remark, change the word "is" to "are", and in the second remark of the Examiner, add, after the word "whether" in the first line of said remark and before the word "true" in the second line of said remark, the words "my statement was".

Page 489, line 14, under Examiner's statement, insert the word "so" between the words "records" and "show".

Page 584, first statement by the Examiner, strike out the word "neither" between the words "could" and "hear", and insert the word "neither" between the words "hear" and "the", and change the word "or" at the end of the line to "nor".

Page 709, 3d line, strike out the word "and" between

the words "filed" and "properly" and insert the word "when".

Page 823, 1st line of Examiner's second remark, insert the word "has" between "Autenrieth" and "already".

Page 847, 7th line, insert after the word "supplying" the word "energy", and in the 8th line insert the word "that" between the words "recall" and "there", and change the word "to" to "on".

Page 937, in the Examiner's second remark, insert the word "that" after the word "understanding" and before the word "it".

Page 938, in the Examiner's second statement, add the word "but" after the comma at the end of the first line, and strike out the word "or" in the beginning of the second line.

Page 944, in the Examiner's second statement, insert the word "that" between the words "saying" and "upon" in the first line.

Page 945, 5th line, change the word "points" to the word "parts".

Page 960, 6th line, change the word "name" to "naming".

Page 1016, 15th line, strike out the words "he thinks".

Page 1022, 5th line from the bottom, insert the word "as" before the word "to".

Page 1033, 6th line from the bottom, change the word "would" to "had".

Page 1060, 11th line, insert the word "his" between the words "to" and "qualifications".

Page 1064, 3d line from the bottom, strike out the word "and".

Page 1066, insert after the 3d paragraph in the Examiner's first statement the following: "Attention was called to the fact that an exhibit had been introduced and as-

signed to No. 20 and that this one under discussion could not be assigned that number."

Page 1104, 5th line from the bottom, change the word "not" to "no", and 4th line from the bottom, insert between the word "or" and the word "give" the words "you may."

Page 1105, in the Examiner's second statement, strike out the word "don't" between the words "Let's" and "get".

Page 1119, the first question by the Examiner, insert at the beginning, before the word "Steam", the words "He refers to", and place a period after the word "system".

Page 1156, first statement by the Examiner, place a question mark after the word "words" in the second line, and strike out the words "or do you".

Page 1167, first statement by the Examiner, insert the word "that" between the word "now" and the word "it".

Page 1169, first statement by the Examiner, in the second line, insert the word "the" between the word "that" and the word "parts", and in the fourth line of this statement, insert between the word "Company" and the word "are" the following: "designated by him is granted and the parts".

Page 1173, in the Examiner's first statement, in the second line, strike out the word "with" and insert the word "to".

Page 1175, in the Examiner's third statement, line 3, change the word "agree" to "agreed", and in line 4, strike out the words "by filing" and insert the words "be filed".

Page 1176, in the Examiner's third statement, line 3, insert the word "filing" between the words "of" and "briefs". In the Examiner's last statement on this page, insert the word "that" in the second line between the word

"agree" and the word "the", and strike out the words "not later" in the third line and the word "than" in the fourth line.

Carroll B. Spencer,
Atty. Examiner.

Jan. 9, 1939.

ergy in interstate commerce, and therefore, Jersey Central Power & Light Company is a "public utility" within the meaning of the Federal Power Act;

(4) New Jersey Power & Light Company owns and operates facilities for the transmission of electric energy in interstate commerce;

(5) The acquisition of 341,350 shares of the common capital stock of Jersey Central Power & Light Company by New Jersey Power & Light Company was the acquisition by a public utility of the securities of another public utility within the meaning of Section 203(a) of the Federal Power Act; that New Jersey Power & Light Company, having acquired such securities without first having secured an order of the Commission authorizing it to do so, has acquired such securities in violation of the express provisions of Section 203(a) of the Federal Power Act.

By the Commission,
Leon M. Fuquay,
Secretary.

X.

APPLICATION FOR REHEARING BY NEW JERSEY POWER & LIGHT COMPANY

(Filed Aug. 16, 1939)

To the Federal Power Commission:

The petition of New Jersey Power & Light Company respectfully represents that:

I. The exact legal name and the post-office address of your petitioner is:

New Jersey Power & Light Company,
9 West Blackwell Street,
Dover, New Jersey.

II. The name and post-office address of your petitioner's attorneys, to whom all correspondence with regard to this application should be addressed, is as follows:

Travis, Brownback & Paxson,
61 Broadway,
New York, New York.

III. This application is made for a rehearing of a so-called "Determination by the Commission", entered by your Honorable Commission on July 18, 1939; and for the abrogation of the said Determination, on the following grounds:

(1) That there is no substantial evidence in the record of the proceedings had herein before your Honorable Commission to support said Determination, and particularly findings numbered (3) and (5); and that said findings are arbitrary and capricious for lack of such factual support;

(2) That the conclusions reached in the said Determination, and especially as to the status of Jersey

Central Power & Light Company, and as to the violation of Section 203(a) of the Federal Power Act by your petitioner, are not authorized by a due and proper construction of the terms of the Federal Power Act; and are reached in violation of the terms thereof; and that in making the said Determination, your Honorable Commission has departed from the applicable principles of law and statutory construction;

(3) That the said Determination (and particularly findings numbered (3) and (5)), invades, abrogates, and nullifies rights guaranteed to your petitioner under the terms of the Constitution of the United States; and Amendments V and X and Article I, Section 8, Subdivision 3 thereof;

(4) That if the said Determination (and particularly findings numbered (3) and (5)), is, by due and appropriate construction deemed to be authorized by the terms of the Federal Power Act, then the said Act violates and invades the rights guaranteed to your petitioner by the Constitution of the United States, and Amendments V and X and Article I, Section 8, Subdivision 3 thereof;

all as more fully hereinafter set out.

IV. The findings made by your Honorable Commission in the said Determination are not supported by substantial evidence, and are contrary to the evidence, in the following respects:

A. As to finding number (1), referring to the connecting transmission facilities of Jersey Central Power & Light Company (hereinafter called "Jersey Central") and Public Service Electric and Gas Company (hereinafter called "Public Service"), located between South Amboy and Perth Amboy in the State of New Jersey:

1. "* * * such transmission facilities of the above-named companies are utilized for the transmission of electric energy in both directions between Mechanic Street substation and the substation of Jersey Central * * *"

The uncontroverted testimony of witness Crumley, who actually operates the Jersey Central property, and of witness Sibley, who investigated the operations of both companies, demonstrates conclusively that the transmission facilities of Jersey Central at South Amboy, extending to the Raritan River, are utilized solely for the transmitting of electric energy to the Raritan River where such facilities connect with the transmission facilities of Public Service, and are not utilized by Jersey Central for the transmission of said energy to Mechanic Street substation of Public Service, contrary to the implication of said finding. The said uncontroverted testimony clearly shows that the said transmission facilities of Jersey Central are not used or utilized by Jersey Central for the receipt of commercial energy from said Public Service except for rare emergency occasions; and that instant flashes of energy received by Jersey Central over the said facilities are of a casual and accidental character, having no commercial significance, and are immaterial to the business of the company, or the matters at issue in this proceeding.

2. "* * * such transmission facilities at Mechanic Street substation are connected directly and at all times with a common bus bar in the Mechanic Street substation * * *"

The bus bar in the Mechanic Street substation of Public Service Electric & Gas Company is shown by such testimony to be a facility owned and operated by,

and under the sole and exclusive control of, said Public Service, and is shown not to be a facility "common" to Public Service and Jersey Central; and no transmission facilities of Jersey Central are connected with such bus bar; contrary to the implication contained in said finding.

3. "* * * normally electric energy passes over such transmission facilities daily in both directions between the points specified * * *"

The testimony of the above witnesses shows that energy is not "normally" transferred daily from said Public Service to Jersey Central, but that transfers in this direction are of unusual and instantaneous character.

B. As to the finding number (2), referring to the said facilities of Jersey Central and Public Service, and the certain separate and distinct connecting facilities between Public Service and Staten Island Edison Corporation:

1. "* * * that the transmission facilities described provide a direct and interconnected line for the flow of electric energy between the substation of Jersey Central Power & Light Company located adjacent to its generating plant in South Amboy and Atlantic substation of Staten Island Edison Corporation on Staten Island in the State of New York, via Mechanic Street substation, * * *"

Witnesses Crumley, Sibley and Lytel have demonstrated, without controversy, that the flow of electric energy between the interconnecting facilities of Jersey Central and Public Service is a flow unconnected and unrelated in any commercial or business sense with any flow of power which may occur on the interconnecting facilities of said Public Service and Staten

Island Edison Corporation; contrary to the necessary implications contained in said recited portion of said finding number (2), and contained in other similar portions of such finding.

2. "• • • such transmission facilities of Public Service Electric and Gas Company and Staten Island Edison Corporation are attached to the same common bus bar at Mechanic Street substation to which is attached the transmission facilities of (Jersey Central and Public Service) • • •"

The said bus bar is, as above pointed out, shown to be a Public Service facility, and connected only to Public Service transmission facilities, not "common" to Public Service and Jersey Central and Staten Island Edison Corporation; all contrary to the terms of such portion of said finding number (2).

3. "• • • electric energy transmitted over • • • (Jersey Central facilities) to Atlantic substation, on Staten Island, in the State of New York, via Mechanic Street substation, is generated in the State of New Jersey and consumed in the State of New York; that electric energy transmitted from Atlantic Street substation to • • • (Jersey Central facilities) via Mechanic Street substation, is generated in the State of New York and consumed in the State of New Jersey • • •"

The evidence in this proceeding shows that there is no routing or sending of energy between Jersey Central and Staten Island Edison Corporation "via" facilities of Public Service. Such evidence rebuts the inference contained in the above finding that any consumption of Staten Island energy by Jersey Central, or any consumption of Jersey Central energy by Staten Island, is a matter of ordinary or usual course.

or is a result of volition or desire, or intent of the parties concerned, or is material to the matters in issue in this proceeding or is of other than strictly academic and scientific interest. The relevant evidence in this proceeding demonstrates that electric energy transmitted over facilities of Jersey Central, at the place in question, is transmitted to and received from, Public Service Electric & Gas Company—delivery being taken by both companies at a point within the State of New Jersey.

C. As to finding number (3), *in toto:*

There is no evidence whatsoever in this proceeding that the transmission facilities owned and operated by Jersey Central at the place in question, are utilized by the said company or by any other person for the transmission of electric energy in interstate commerce, and the uncontradicted testimony of witnesses testifying as to the business done by Jersey Central thereover, demonstrates that such facilities are utilized only for the transmission of electric energy between Jersey Central and Public Service Electric & Gas Company within the State of New Jersey; and as a matter of intrastate local traffic or commerce between the said companies. That portion of finding number (3) to the effect that Jersey Central is a "public utility" within the meaning of the Federal Power Act, is in direct contradiction to the testimony of witnesses familiar with the facts as to the business done by the said company.

D. As to finding number (5):

There is no evidence in the proceedings had herein before this Commission, that Jersey Central Power & Light Company is a "public utility" within the meaning of Section 203(a) of the Federal Power Act,

and the facts brought out in the record herein demonstrate that such company is not a "public utility" within such meaning. There is, therefore, no evidence that New Jersey Power & Light Company, in acquiring 341,350 shares of the common capital stock of Jersey Central Power & Light Company, has violated the provisions of said Section 203(a) of the Federal Power Act.

V. Part II of the Federal Power Act, entitled "Regulation of Electric Utility Companies Engaged in Interstate Commerce", provides, *inter alia*, that Federal regulation of that part of the business of transmitting and selling electric energy for ultimate distribution to the public:

> "* * * which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States." (Act, Section 201, Subdivision (a))

That said Part II further provides that:

> "The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this Part and the Part next following, over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter."

By the enactment of the above provisions, Congress has specifically limited the regulatory power delegated to

your Honorable Commission over electric utility companies, and has excluded from the application of the Act Jersey Central Power & Light Company; which company is, by uncontroverted testimony, shown to be, in all its affairs and matters, subject to regulation by the New Jersey Board of Public Utility Commissioners. Your Honorable Commission has been thereby specifically denied jurisdiction over the facilities of Jersey Central Power & Light Company; which said facilities are used only in generation of electricity at places within New Jersey, distribution and sale of such energy to consumers entirely located within New Jersey, and transmission of such energy at and to places located entirely within New Jersey. In finding that Jersey Central is a "public utility", your Honorable Commission has found that such company is subject to your regulatory power and jurisdiction. In making such finding, your Honorable Commission has erroneously construed the above recited limitations contained in the Federal Power Act.

Under the provisions of Section 213(e):

> "The term 'public utility' when used in this Part or in the Part III means any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part."

The above provision, read in connection with other provisions of the Act, including provisions set out in paragraph V above, clearly shows the intent and purpose of Congress not to include electric utility companies such as Jersey Central, which carries on only an intrastate business, within the meaning of the term "public utility" as used in the said Act and especially Section 203(a) thereof. Your Honorable Commission in entering the Determination here complained of, and especially findings numbered (3) and (5) thereof, has, therefore, erroneously construed the said provision of the said Federal Power Act. In failing to

follow the pertinent decisions of the United States Supreme Court which bear upon the proper construction of said Act, as pointed out in arguments and briefs presented by your petitioner, your Honorable Commission has failed to follow controlling legal principles in construing said Act.

VI. As demonstrated by uncontradicted testimony in this proceeding, Jersey Central is concerned with, and carries on commerce in electric energy solely within the State of New Jersey and not to any border line of such State. Its said business, commerce and affairs are exclusively and entirely carried on within and appertain to the State of New Jersey and citizens and residents thereof. The power to regulate the business and affairs of Jersey Central, or any part thereof, has not been delegated to the United States or the Congress thereof, under the terms of Article One, Section 8, Subdivision 3, of the Constitution; but has been specifically reserved to the State of New Jersey by Amendment X of the said Constitution. In assuming to make the Determination here complained of and especially findings numbered (3) and (5), your Honorable Commission has cast doubts upon the legality of the proceedings whereby your petitioner, New Jersey Power, acquired stock of Jersey Central; and upon the present title and right of said New Jersey Power to have and hold such stock; and has thus deprived your petitioner, New Jersey Power, of the free use and disposition of its property, without due process of law.

Wherefore, for the reason hereinabove set forth, your petitioner respectfully prays:

(a) That your Honorable Commission grant a rehearing in this proceeding;

(b) That upon such rehearing, or without further hearing, your Honorable Commission enter an order abrogating the "Determination by the Commis-

sion" dated July 18, 1939 entered herein; and make and enter findings that Jersey Central Power & Light Company is not a "public utility", as defined by the Federal Power Act; and that the acquisition of 341,350 shares of the common capital stock of Jersey Central Power & Light Company by New Jersey Power & Light Company was not the acquisition by a public utility of the securities of another public utility within the meaning of Section 203(a) of the Federal Power Act.

NEW JERSEY POWER & LIGHT COMPANY

By R. N. MALEHORN
Secretary

State of New York
County of New York ss.:

R. N. Malehorn, being duly sworn, deposes and says: That he is the Secretary of New Jersey Power & Light Company, the petitioner herein; that he has read the foregoing petition and knows the contents thereof; that the statements therein contained are true and correct to the best of his knowledge and belief.

R. N. MALEHORN

Sworn to before me this 15th day of August, 1939.

Dorothy K. Richards
Notary Public, Kings County
Kings Co. Clks. No. 63, Regs. No. 170
N. Y. Co. Clks. No. 154, Regs. No. 0R100
Commission expires March 30, 1940.

CERTIFICATE OF SERVICE ON APPLICATION FOR REHEARING

I hereby certify that on August 15th, 1939, there was served the foregoing document upon all parties of record in this proceeding by mailing a copy thereof properly addressed to Joseph F. Autenrieth.

Dated at Washington, D. C., this 16th day of August, 1939.

C. Edward Paxson
By (signature) William J. Duiker
William J. Duiker

Of Counsel for:

New Jersey Power and Light Company
and
Jersey Central Power and Light Company

XL

APPLICATION FOR REHEARING BY JERSEY CENTRAL POWER & LIGHT COMPANY

(Filed Aug. 16, 1939)

To the Federal Power Commission:

The petition of Jersey Central Power & Light Company respectfully represents that:

I. The exact legal name and the post office address of your petitioner is as follows:

Jersey Central Power & Light Company,
Jersey Central Building,
Asbury Park, New Jersey.

II. The name and post office address of your petitioner's attorneys, to whom all correspondence with regard to this application should be addressed, is as follows:

Antenrieth & Wortendyke,
1181 Raymond Blvd.,
Newark, New Jersey.

III. This application is made for a rehearing of a so-called "Determination by the Commission", entered by your Honorable Commission on July 18, 1939; and for the abrogation of the said Determination, on the following grounds:

(1) That there is no substantial evidence in the record of the proceedings had herein before your Honorable Commission to support said Determination, and particularly findings numbered (3) and (5); and that said findings are arbitrary and capricious for lack of such factual support;

(2) That the conclusions reached in the said Determination, and especially that Jersey Central Power & Light Company is a "public utility" within the meaning of the Federal Power Act, are not authorized by a due and proper construction of the terms of the Federal Power Act, and are reached in violation of the terms thereof; and that in making the said Determination, your Honorable Commission has departed from the applicable principles of law and statutory construction;

(3) That the said Determination (and particularly finding number (3)), invades, abrogates, and nullifies rights guaranteed to your petitioner under the terms of the Constitution of the United States; and Amendments V and X and Article I, Section 8, Subdivision 3 thereof;

(4) That if the said Determination (and particularly finding number (3)), is, by due and appropriate construction deemed to be authorized by terms of the Federal Power Act, then the said Act violates and invades the rights guaranteed to your petitioner by the Constitution of the United States, and Amendments V and X and Article I, Section 8, Subdivision 3 thereof;

all as more fully hereinafter set out.

IV. The findings made by your Honorable Commission in the said Determination are not supported by substantial evidence, and are contrary to the evidence, in the following respects:

A. As to finding number (1), referring to the connecting transmission facilities of Jersey Central Power & Light Company (hereinafter called "Jersey Central") and Public Service Electric and Gas Company (herein-

after called "Public Service"), located between South Amboy and Perth Amboy in the State of New Jersey:

1. "* * * such transmission facilities of the above-named companies are utilized for the transmission of electric energy in both directions between Mechanic Street substation and the substation of Jersey Central * * *"

The uncontroverted testimony of witnesses for Respondent and Intervenor in this proceeding demonstrates conclusively that the transmission facilities of Jersey Central at South Amboy, extending to the Raritan River, are utilized solely for the transmitting of electric energy to the Raritan River where such facilities connect with the transmission facilities of Public Service, and are not utilized by Jersey Central for the transmission of said energy to Mechanic Street substation of Public Service, contrary to the implication of said finding. The said uncontroverted testimony clearly shows that the said transmission facilities of Jersey Central are not used or utilized by Jersey Central for the receipt of commercial energy from said Public Service except for rare emergency occasions; and that instant flashes of energy received by Jersey Central over the said facilities are of a casual and accidental character, having no commercial significance, and are immaterial to the business of the company, or the matters at issue in this proceeding.

2. "* * * such transmission facilities at Mechanic Street substation are connected directly and at all times with a common bus bar in the Mechanic Street substation. * * *"

The bus bar in the Mechanic Street substation of Public Service Electric & Gas Company is shown by such testimony to be a facility owned and operated by,

and under the sole and exclusive control of, said Public Service, and is shown not to be a facility "common" to Public Service and Jersey Central; and no transmission facilities of Jersey Central are connected with such bus bars contrary to the implication contained in said finding.

3. "* * * normally electric energy passes over such transmission facilities daily in both directions between the points specified. * * *"

The testimony of the above witnesses shows that energy is not "normally" transferred daily from said Public Service to Jersey Central, but that transfers in this direction are of unusual and instantaneous character.

B. As to the finding number (2), referring to the said facilities of Jersey Central and Public Service, and the certain separate and distinct connecting facilities between Public Service and Staten Island Edison Corporation:

1. "* * * that the transmission facilities described provide a direct and interconnected line for the flow of electric energy between the substation of Jersey Central Power & Light Company located adjacent to its generating plant in South Amboy and Atlantic substation of Staten Island Edison Corporation on Staten Island in the State of New York, via Mechanic Street substation, * * *"

Witnesses for Respondent and Intervenor herein have demonstrated, without controversy, that the flow of electric energy between the interconnecting facilities of Jersey Central and Public Service is a flow unconnected and unrelated in any commercial or business sense with any flow of power which may occur on the interconnecting facilities of said Public Service and

Staten Island Edison Corporation; contrary to the necessary implications contained in said recited portion of said finding number (2), and contained in other similar portions of such finding.

2. "* * * such transmission facilities of Public Service Electric and Gas Company and Staten Island Edison Corporation are attached to the same common bus bar at Mechanic Street substation to which is attached the transmission facilities of (Jersey Central and Public Service) * * *"

The said bus bar is, as above pointed out, shown to be a Public Service facility, and connected only to Public Service transmission facilities, not "common" to Public Service and Jersey Central and Staten Island Edison Corporation; all contrary to the terms of such portion of said finding number (2).

3. "* * * electric energy transmitted over * * * (Jersey Central facilities) to Atlantic substation, on Staten Island, in the State of New York, via Mechanic Street substation, is generated in the State of New Jersey and consumed in the State of New York; that electric energy transmitted from Atlantic Street substation to * * * (Jersey Central facilities) via Mechanic Street substation, is generated in the State of New York and consumed in the State of New Jersey. * * *"

The evidence in this proceeding shows that there is no routing or sending of energy between Jersey Central and Staten Island Edison Corporation "via" facilities of Public Service. Such evidence rebuts the inference contained in the above finding that any consumption of Staten Island energy by Jersey Central, or any consumption of Jersey Central energy by Staten Island, is a matter of ordinary or usual course, or is a result of volition or desire, or intent of the parties con-

cerned, or is material to the matters in issue in this proceeding or is of other than strictly academic and scientific interest. The relevant evidence in this proceeding demonstrates that electric energy transmitted over facilities of Jersey Central, at the place in question, is transmitted to, and received from, Public Service Electric & Gas Company—delivery being taken by both companies at a point within the State of New Jersey.

C. As to finding number (3), *in toto:*

There is no evidence whatsoever in this proceeding that the transmission facilities owned and operated by Jersey Central at the place in question, are utilized by the said company or by any other person for the transmission of electric energy in interstate commerce, and the uncontradicted testimony of witnesses testifying as to the business done by Jersey Central thereover, demonstrates that such facilities are utilized only for the transmission of electric energy between Jersey Central and Public Service Electric & Gas Company within the State of New Jersey; and as a matter of intrastate local traffic or commerce between the said companies. That portion of finding number (3) to the effect that Jersey Central is a "public utility" within the meaning of the Federal Power Act, is in direct contradiction to the testimony of witnesses familiar with the facts as to the business done by the said company.

D. As to finding number (5):

There is no evidence in the proceedings had herein before this Commission, that Jersey Central Power & Light Company is a "public utility" within the meaning of Section 203(a) of the Federal Power Act, and the facts brought out in the record herein demonstrates that such company is not a "public utility"

within such meaning. There is, therefore, no evidence that New Jersey Power & Light Company, in acquiring 341,350 shares of the common capital stock of Jersey Central Power & Light Company, has violated the provisions of said Section 203(a) of the Federal Power Act.

V. Part II of the Federal Power Act, entitled "Regulation of Electric Utility Companies Engaged in Interstate Commerce", provides, *inter alia*, that Federal regulation of that part of the business of transmitting and selling electric energy for ultimate distribution to the public:

> "* * * which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States." (Act, Section 201, Subdivision (a))

The said Part II further provides that:

> "The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this Part and the Part next following, over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter."

By the enactment of the above provisions, Congress has specifically limited the regulatory power delegated to your Honorable Commission over electric utility companies, and has excluded from the application of the Act Jer-

sey Central Power & Light Company; which company is, by uncontroverted testimony, shown to be, in all its affairs and matters, subject to regulation by the New Jersey Board of Public Utility Commissioners. Your Honorable Commission has been thereby specifically denied jurisdiction over the facilities of Jersey Central Power & Light Company; which said facilities are used only in generation of electricity at places within New Jersey, distribution and sale of such energy to consumers entirely located within New Jersey, and transmission of such energy at and to places located entirely within New Jersey. In finding that Jersey Central is a "public utility", your Honorable Commission has found that such company is subject to your regulatory power and jurisdiction. In making such finding, your Honorable Commission has erroneously construed the above recited limitations contained in the Federal Power Act.

Under the provisions of Section 213 (e):

> "The term 'public utility' when used in this Part or in the Part III means any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part."

The above provision, read in connection with other provisions of the Act, including provisions set out in paragraph V above, clearly shows the intent and purpose of Congress not to include electric utility companies such as Jersey Central, which carries on only an intrastate business, within the meaning of the term "public utility" as used in the said Act. Your Honorable Commission in entering the Determination here complained of, and especially finding numbered (3), has, therefore, erroneously construed the said provision of the said Federal Power Act. In failing to follow the pertinent decisions of the United States Supreme Court which bear upon the proper

construction of said Act, as pointed out in arguments and briefs presented by your petitioner, your Honorable Commission has failed to follow controlling legal principles in construing said Act.

VI. As demonstrated by uncontradicted testimony in this proceeding, Jersey Central is concerned with, and carries on commerce in electric energy solely within the State of New Jersey and not to any border line of such State. Its said business, commerce and affairs are exclusively and entirely carried on within and appertain to the State of New Jersey and citizens and residents thereof. The power to regulate the business and affairs of Jersey Central, or any part thereof, has not been delegated to the United States or the Congress thereof, under the terms of Article One, Section 8, Subdivision 3, of the Constitution; but has been specifically reserved to the State of New Jersey by Amendment X of the said Constitution. In assuming to make the Determination here complained of, and especially finding number (3), your Honorable Commission has invaded the right of your petitioner to be free from Federal regulation, and has usurped the power of the State of New Jersey over your petitioner, which power is presently exercised by and through the New Jersey Board of Public Utility Commissioners. By reason of the generality of such Determination and finding, your Honorable Commission in effect requires your petitioner to comply with general orders of your Commission respecting public utilities, thus depriving your petitioner, Jersey Central, of its property without due process of law.

Wherefore, for the reasons herein set forth, your petitioner respectfully prays:

(a) That your Honorable Commission grant a rehearing in this proceeding;

(b) That upon such rehearing, or without further hearing, your Honorable Commission make an order abrogating the "Determination by the Commission" dated July 18, 1939 entered herein; and make and enter findings that Jersey Central Power & Light Company is not a "public utility", as defined by the Federal Power Act.

JERSEY CENTRAL POWER & LIGHT COMPANY
By H. D. POLHEMUS
Vice-President.

State of New Jersey
County of Monmouth *ss.:*

H. D. Polhemus, being duly sworn, deposes and says: That he is the Vice-President of Jersey Central Power & Light Company, the petitioner herein; that he has read the foregoing petition and knows the contents thereof; that the statements therein contained are true and correct to the best of his knowledge and belief.

H. D. POLHEMUS

Sworn to before me this 15th day of August, 1939.

F. Burney

CERTIFICATE OF SERVICE ON APPLICATION FOR REHEARING

I hereby certify that on the 15th day of August, 1939, there was served the foregoing document upon all parties of record in this proceeding by delivering a copy thereof in person to C. Edward Paxson in New York City.

Dated at Washington, D. C. this 16th day of August, 1939.

JOSEPH F. AUTENRIETH
By (Sig.) WILLIAM J. DUIKER

Of Counsel for:
Jersey Central Power and Light Company

XII.

ORDER DENYING PETITIONS FOR REHEARING

(Entered Sept. 15, 1939)

It appearing to the Commission that:

(a) On July 19, 1939, after due notice and hearing, and consideration of the entire record in the above entitled cause, including the briefs submitted by the respective parties, the Commission determined, among other things, that Jersey Central Power & Light Company was a "public utility" as defined by the Federal Power Act, and that New Jersey Power & Light Company had violated the provisions of Section 203(a) of said Act by the acquisition of 341,350 shares of the common capital stock of Jersey Central Power & Light Company, without first having secured an order of the Commission authorizing such acquisition;

(b) New Jersey Power & Light Company, on August 16, 1939, filed a petition alleging that the findings contained in such determination were not supported by the evidence; that Jersey Central Power & Light Company was not a "public utility" as defined by the Federal Power Act; that the determination was erroneous both in law and in fact, invaded rights guaranteed by Amendments V and X and Article I, Section 8, Subdivision 3 of the Constitution of the United States; and requested that a rehearing be granted in the above-entitled cause; that upon such rehearing, or without further hearing, the Commission find that Jersey Central Power & Light Company is not a "public utility" as defined by the Federal Power Act, and that the acquisition of 341,350 shares

of the common capital stock of Jersey Central Power & Light Company by New Jersey Power & Light Company was not an acquisition of the securities of a "public utility" within the meaning of Section 203(a) of the Federal Power Act;

(c) On August 16, 1939, Jersey Central Power & Light Company filed a petition containing allegations identical with those contained in the petition filed by New Jersey Power & Light Company, and requested that the Commission grant a rehearing in the above-entitled cause, and upon such rehearing, or without further hearing, make and enter an order abrogating the determination of July 18, 1939, and find that Jersey Central Power & Light Company is not a "public utility" as defined in the Federal Power Act;

The Commission *orders* that:

(1) The arguments and allegations contained in the petitions for rehearing filed on behalf of New Jersey Power & Light Company and Jersey Central Power & Light Company raise the same questions previously presented to the Commission and fully considered by it prior to the entry of the determination of July 18, 1939;

(2) The findings in the determination of July 18, 1939, are fully supported by the evidence of record in this cause and are hereby reaffirmed;

The Commission *finds* that:

The petitions for rehearing filed August 16, 1939, by New Jersey Power & Light Company and Jersey Central Power & Light Company, be and the same are, hereby denied.

By the Commission.
LEON M. FUQUAY,
Secretary.

XIII.

CERTIFICATION OF RECORD

To the Honorables, the Judges of the United States Circuit Court of Appeals for the Third Circuit:

The Federal Power Commission, reserving all rights to question the jurisdiction of your Honorable Court to review the determination of this Commission as prayed in the petitions for review filed in this cause, hereby certifies the transcript of the record upon which the determination complained of was entered, In the matter of New Jersey Power & Light Company and Jersey Central Power & Light Company, Docket No. IT-5518, and consisting of the following:

Order to Show Cause entered June 7, 1938; Answer of New Jersey Power & Light Company to Order to Show Cause filed June 24, 1938; Order Instituting Investigation and Setting Date of Hearing entered July 5, 1938; Order Postponing Hearing entered July 29, 1938; Order Postponing Hearing entered September 8, 1938; Designation of Examiner filed September 8, 1938; Petition to Intervene filed by Jersey Central Power & Light Company, September 27, 1938; Transcript of Hearings (including Exhibits) held September 27, 28, 29, 30, October 3, 4, 5, 6, 7 and 10, 1938; Determination by the Commission entered July 18, 1939; Application for Rehearing filed by New Jersey Power & Light Company, August 16, 1939; Application for Rehearing filed by Jersey Central Power & Light Company, August 16, 1939; Order Denying Petitions for Rehearing entered September 15, 1939.

By order of the Commission.

Attest:

LEON M. FUQUAY,
Secretary.

(Seal)

XIV.
STIPULATION

It is hereby stipulated and agreed that Allen E. Throop of 71 West Street, Borough of Manhattan, City and State of New York, be and he hereby is substituted in the place and stead of Travis, Brownback & Paxson, as attorneys for the petitioner New Jersey Power & Light Company and that an order to this effect may be entered without further notice.

NEW JERSEY POWER & LIGHT COMPANY,
Petitioner,
By E. L. TIRRELL,
Vice President
TRAVIS, BROWNBACK & PAXSON,
Attorneys for Petitioner
New Jersey Power & Light Company

State of New York,
County of New York, ss:

On the 27th day of May, 1940, before me personally came E. L. Tirrell, to me known, who being by me duly sworn did depose and say that he resides in the City of Bound Brook, State of New Jersey, that he is Vice President of New Jersey Power & Light Company, the corporation described in and who executed the foregoing instrument; that he knew the corporate seal of the said corporation; that the seal affixed to the said instrument was such corporate seal; that it was so affixed by the order of the Board of Directors of said corporation, and that he signed his name thereto as Vice President by like order.

WILLETT R. PORTER,
Notary Public, Queens County
Queens Co. Clerk's No. 1698, Reg. No. 572
Certificates Filed in
N. Y. Co. Clerk's No. 40, Reg. No. 2-P-24
Commission expires March 30, 1942

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CLERK'S COPY.

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Vol. III

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1942

No. 299

JERSEY CENTRAL POWER & LIGHT COMPANY,
PETITIONER,

vs.

FEDERAL POWER COMMISSION

No. 329

NEW JERSEY POWER & LIGHT COMPANY,
PETITIONER,

vs.

FEDERAL POWER COMMISSION

ON WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

PETITIONS FOR CERTIORARI FILED {AUGUST 13, 1942.
AUGUST 22, 1942.

CERTIORARI GRANTED OCTOBER 12, 1942.

TRANSCRIPT OF RECORD
VOLUME III.

IN THE
United States Circuit Court of Appeals
For the Third Circuit

No. 7256 October Term, 1939

JERSEY CENTRAL POWER & LIGHT COMPANY
Petitioner

v.

FEDERAL POWER COMMISSION
Respondent

No. 7257 October Term, 1939

NEW JERSEY POWER & LIGHT COMPANY
Petitioner

v.

FEDERAL POWER COMMISSION
Respondent

PETITIONS FOR REVIEW FROM AN ORDER OF THE FEDERAL POWER COMMISSION

Original Transcript of Record Filed December 29, 1939

Murrelle Printing Company, Law Printers, Sayre, Pa.
Jos. M. Mitchell, Philadelphia County Representative, Philadelphia, Pa.
5738 Thomas Ave. SAR6450

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BUREAU OF ENGINEERING
DIVISION OF POWER RESOURCES AND REQUIREMENTS

FEDERAL POWER COMMISSION
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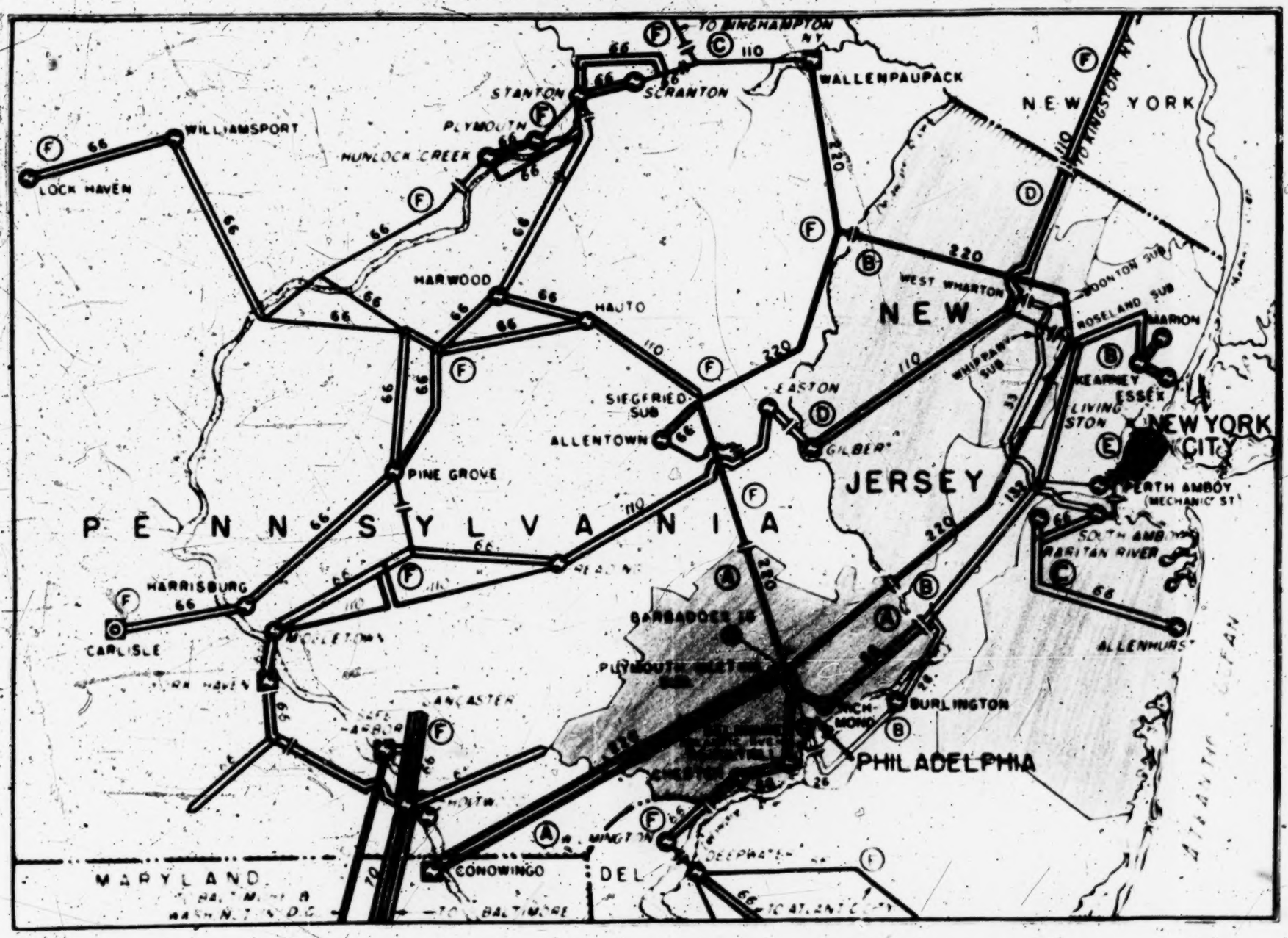
PRINCIPAL LINES AND PLANTS OF JERSEY CENTRAL POWER & LIGHT CO. AND INTERCONNECTED SYSTEMS



IT-5518

LEGEND

- (A) PHILADELPHIA ELECTRIC CO AND SUBSIDIARIES
- (B) PUBLIC SERVICE ELECTRIC AND GAS CO
- (C) JERSEY CENTRAL POWER & LIGHT CO
- (D) NEW JERSEY POWER & LIGHT CO
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- LOWER VOLTAGE CIRCUITS
- INTERCONNECTION

SCALE
0 5 10 20 30 40 50 60 70 80 MILES

COMMISSION'S EXHIBIT NO. 2

JERSEY CENTRAL POWER AND LIGHT COMPANY

Physical and Operating Characteristics

Items		1934	1935	1936	1937
A. Generating Capacity by Plants					
1. Raritan River (Steam)	Kw.			60,000	60,000
2. South Amboy (Steam)	Kw.			50,000	50,000
3. Whippany (Steam)	Kw.			20,000	20,000
4. Allenhurst (Steam)	Kw.			6,000	6,000
5. Long Branch (Steam)	Kw.			1,300	1,300
6. Morristown (Steam)	Kw.	5,450[1]		—	—
7. Pompton Lakes (Hydro)	Kw.			350	350
Total Generating Capacity	Kw.			137,650	137,650
B. Energy Output by Plants					
1. Raritan River	Kwh.	129,985,900	108,447,800	156,935,500	187,212,200
2. South Amboy	Kwh.	142,416,100	209,196,400	181,059,400	167,441,300
3. Whippany	Kwh.	483,600	350,500	2,714,200	9,864,800
4. Allenhurst	Kwh.	19,730	13,650	33,500	485,600
5. Long Branch	Kwh.	19,840	9,845	27,950	5,950

Commission's Exhibit No. 2

Items		1934	1935	1936	1937
6. Morristown	Kwh.	6,227	—	—	—
7. Pompton Lakes	Kwh.	865,800	903,600	785,600	816,800
Total Energy Output	Kwh.	273,797,197	318,921,795	341,556,150	365,826,650
C. Plant Capability and Demand at Time of System Peak					
Annual demand on system plants	Kw.			66,000	70,200
System capability	Kw.			111,000	121,650
Installed capacity connected to load	Kw.			80,000	105,000
D. System Annual Energy Accounting					
Energy generated	Kwh.	273,797,197	318,921,795	341,556,150	365,826,650
Energy purchased	Kwh.	1,565,920	995,176	1,131,945	1,634,460
Energy sold for resale	Kwh.	56,777,000	77,821,690	70,694,825	61,491,293
Net energy for system	Kwh.	218,586,117	242,095,275	271,993,270	305,969,817
E. Energy Purchased from Others					
1. Received from Public Service Electric and Gas Company at New Lisbon	Kwh.	816,720	969,480	1,237,320	1,315,560
2. Received from Public Service Electric and Gas Company at South Amboy	Kwh.	737,300	296	3,225	315,600

Items		1934	1935	1936	1937
3. Received from New Jersey Power and Light Company at Boonton	Kwh.	11,900	25,400	—108,600[2]	3,300
Total energy purchased	Kwh.	1,565,920	995,176	1,131,945	1,634,460
F. Energy Sold for Resale					
1. Sold to Public Service Electric and Gas Company at South Amboy	Kwh.	56,345,000	77,333,196	70,694,825	55,421,000
2. Sold to New Jersey Power and Light Company at Boonton	Kwh.	432,000	488,500	—	100
3. Sold to Municipal Systems	Kwh.				6,070,193
Total sale for resale	Kwh.	56,777,000	77,821,696	70,694,825	61,491,293

[1] Dismantled November, 1935.

[2] Energy lost in energizing interconnecting line.

Source of Data: All data for 1934, 1935 and 1936 from system report to the Federal Power Commission on Form 11-127. All data for 1937 from reports to the Federal Power Commission on Forms FPC No. 1 and FPC No. 64.

COMMISSION'S EXHIBIT NO. 3

NEW JERSEY POWER AND LIGHT COMPANY
Physical and Operating Characteristics

Items		1934	1935	1936	1937
A. Generating Capacity by Plants					
1. Holland (Steam)	Kw.			55,000	55,000
2. Columbia (Hydro)	Kw.			270	270
Total Generating Capacity	Kw.			55,270	55,270
B. Energy Output by Plants					
1. Holland	Kwh.	312,733,240	303,956,420	357,196,690	323,725,360
2. Columbia	Kwh.	1,072,300	1,104,600	920,000	1,196,700
Total Energy Output	Kwh.	313,805,540	305,061,020	358,116,690	324,922,060
C. Plant Capability and Demand at Time of System Peak					
Annual system demand	Kw.			55,000	49,000
System capability	Kw.			55,000	52,100
Installed capacity connected to load	Kw.			55,000	55,270
D. System Annual Energy Accounting					
Energy generated	Kwh.	313,805,540	305,061,020	358,116,690	324,922,060

Commission's Exhibit No. 3

Items		1934	1935	1936	1937
Energy purchased	Kwh.	91,121,850	95,483,528	67,395,194	84,663,441
Energy sold for resale	Kwh.	259,887,883	244,355,717	238,156,495	207,400,531
Net energy for system	Kwh.	145,039,507	156,188,831	187,355,389	202,184,970
E. Energy Purchased from Others					
1. Firm energy purchased from Metropolitan Edison Co.	Kwh.	646,642	654,077	1,586,794)	
2. Non-firm energy purchased from Metropolitan Edison Co.	Kwh.	51,112,208	61,211,795	35,490,468)	55,359,136
3. Non-firm energy purchased from Central Hudson Gas & Elec. Co.	Kwh.	12,420,000	13,908,656	7,513,732	15,139,205
4. Energy purchased from Jersey Central Power and Light Co. at Boonton	Kwh.	10,634,000	4,887,000	183,200	100
5. Energy purchased from Public Service Elec. & Gas Co. at Roseland	Kwh.	16,027,000	14,606,000	22,405,000	14,030,000
6. Energy purchased from Riegel Paper Corp. at Warren Glen	Kwh.	282,000	216,000	216,000	135,000
Total energy purchased	Kwh.	91,121,850	95,483,528	67,395,194	84,663,441

Items		1934	1935	1936	1937
F. Energy sold for Resale					
1. Firm energy sold to Metropolitan Edison Co.	Kwh.	2,052,876	2,409,761	4,691,951)	
2. Non-firm energy sold to Metropolitan Edison Co.	Kwh.	198,866,534	181,825,122	209,828,994)	174,222,383
3. Energy sold to Central Hudson Gas & Elec. Co.	Kwh.	20,054,573	21,886,934	2,649,950	21,308
4. Energy sold to Jersey Central Power & Light Co. at Boonton	Kwh.	10,213,900	4,423,900	74,600	3,300
5. Energy sold to Public Service Elec. & Gas Co. at Roseland	Kwh.	28,700,000	33,810,000	20,911,000	33,150,000
Total energy sold for resale	Kwh.	259,887,883	244,355,717	238,156,495	207,396,991
Sussex Rural El. Cooperative					3,540
					207,400,531

Source of Data: All data for 1934, 1935 and 1936 from system report to the Federal Power Commission on Form 11-127. All data for 1937 from reports to the Federal Power Commission on Forms FPC No. 1 and FPC No. 64.

COMMISSION'S EXHIBIT NO. 4

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

Physical and Operating Characteristics

Items		1934	1935	1936	1937
A. Generating Capacity by Plants					
1. Kearney (Steam)	Kw.			324,500	324,500
2. Essex (Steam)	Kw.			193,000	193,000
3. Marion (Steam)	Kw.			94,950	94,950
4. Burlington (Steam)	Kw.			51,750	51,750
5. Perth Amboy (Steam)	Kw.			20,250	20,250
Total Capacity	Kw.			684,450	684,450
B. Annual Production by Plants					
1. Kearney	Kwh.	1,225,882,870	1,307,906,210	1,541,724,710	1,410,252,050
2. Essex	Kwh.	354,136,480	343,965,670	403,785,650	427,014,410
3. Marion	Kwh.	145,378,317	84,119,720	80,994,596	54,895,133
4. Burlington	Kwh.	291,249,986	288,532,764	306,994,681	262,272,385
5. Perth Amboy	Kwh.	—	—	—	—
Total Production	Kwh.	2,016,647,653	2,024,524,364	2,333,499,637	2,154,433,978
C. System Capability and Annual Demand at Time of System Peak					
System annual demand	Kw.			504,000	551,900

Commission's Exhibit No. 4

Items		1934	1935	1936	1937
System capability	Kw.			619,000	684,450
Installed capacity connected to load	Kw.			559,000	563,850
Purchased capacity from other utilities	Kw.				80,000
D. System Annual Energy Accounting					
Energy generated	Kwh.	2,016,647,653	2,024,524,364	2,333,499,637	2,154,433,978
Energy purchased	Kwh.	233,692,924	341,699,575	330,435,477	648,258,772
Energy sold for resale	Kwh.	115,963,684	98,526,264	134,256,520	57,921,060
Net energy for system	Kwh.	2,134,376,893	2,267,697,675	2,529,678,594	2,744,771,690
E. Energy Purchased from					
1. Philadelphia Elec. Co. Firm Energy	Kwh.	11,526,345			
2. Philadelphia Elec. Co. Non-firm Energy	Kwh.	79,990,411	156,330,676	169,649,000	465,392,000
3. Pennsylvania Power and Light Co.	Kwh.	26,477,604	49,499,908	41,986,000	59,201,000
4. Staten Island Edison Corp.	Kwh.	3,033,800	3,147,300	3,111,400	3,119,200
5. Rockland Elec. Co.	Kwh.	1,376,064	2,455,391	6,046,477	4,622,752
6. Jersey Central Pwr. & Lt. Co.	Kwh.	56,345,000	77,788,800	70,855,000	55,421,000

Items		1934	1935	1936	1937
7. New Jersey Pwr. & Lt. Co.	Kwh.	28,700,000	33,810,000	20,911,000	33,150,000
8. Passaic Valley Water Com.	Kwh.	5,947,200	4,401,600	4,723,200	7,688,120
9. Society for Establishing Useful Manufactures.	Kwh.	20,296,500	14,267,900	13,153,400	19,664,700
Total energy purchased	Kwh.	233,692,924	341,699,575	330,435,477	648,258,772
F. Energy Sold for Resale to					
1. Philadelphia Elec. Co. Non-firm energy	Kwh.	60,808,104	45,469,604	54,357,000	5,488,000
2. Pennsylvania Power and Light Co.	Kwh.	18,301,360	7,635,380	10,611,000	1,244,000
3. Staten Island Edison Corp.	Kwh.	3,828,100	3,453,500	3,286,600	3,093,400
4. Jersey Central Pwr. & Lt. Co.	Kwh.	1,554,020	1,425,380	1,409,720	1,631,160
5. New Jersey Pwr. & Lt. Co.	Kwh.	16,027,000	14,606,000	22,405,000	14,030,000
6. Rockland Elec. Co.	Kwh.	14,652,500	25,179,000	41,117,000	30,694,500
7. Pennsylvania R. R. Co.	Kwh.	49,000	—	—	—
8. Borough of Milton, New Jersey	Kwh.	743,600	757,400	761,400	1,036,200
9. Society for Establishing Useful Manufactures	Kwh.	—	—	317,800	703,800
Total energy sold for resale	Kwh.	115,963,684	98,526,264	134,256,520	57,921,060

Source of Data: All data for 1934, 1935 and 1936 from system report to the Federal Power Commission on Form 11-127. All data for 1937 from reports to the Federal Power Commission on Forms FPC No. 1 and FPC No. 64.

COMMISSION'S EXHIBIT NO. 5

STATEN ISLAND EDISON CORPORATION
Physical and Operating Characteristics

Items		1934	1935	1936	1937
A. Generating Capacity by Plants					
Livingston	Kw.			47,500	47,500
B. Annual Output by Plant					
Livingston	Kwh.	110,081,700	112,189,400	119,435,360	127,054,880
C. System Capability and Annual Demand at Time of Peak					
System annual demand	Kw.			30,600	31,700
System capability	Kw.			47,500	46,500
Installed capacity connected to load	Kw.			30,000	30,000
D. System Annual Energy Accounting					
Energy generated	Kwh.	110,081,700	112,189,400	119,435,360	127,054,880
Energy purchased	Kwh.	3,828,100	3,453,500	3,286,600	3,093,400

Items		1934	1935	1936	1937
Energy sold for resale	Kwh.	3,033,800	3,147,300	3,111,400	3,119,200
Net energy for system	Kwh.	110,876,000	112,495,600	119,610,560	127,029,080
E. Energy Purchased from Others					
Energy purchased from Public Service Elec. & Gas Co.	Kwh.	3,828,100	3,453,500	3,286,600	3,093,400
F. Energy Sold to Others for Resale					
Energy sold to Public Service Elec. & Gas Co.	Kwh.	3,033,800	3,147,300	3,111,400	3,119,200

Source of Data: All data for 1934, 1935 and 1936 from system report to the Federal Power Commission on Form 11-127. All data for 1937 from reports to the Federal Power Commission on Forms FPC No. 1 and FPC No. 64.

Commission's Exhibit No. 5

COMMISSION'S EXHIBIT NO. 6

ANNUAL ENERGY PRODUCTION, INTERCHANGE AND NET AVAILABLE FOR THE PRINCIPAL UTILITY SYSTEMS AFFECTED BY THE OPERATIONS

		TRANSACTIONS WITH OTHER SYSTEMS						
		Jersey Central Power & Light Co.		*Public Service Electric & Gas Co.*		*New Jersey Power & Light Co.*		
	Production Kwh	*Purchased from Kwh*	*Sold to Kwh*	*Purchased from Kwh*	*Sold to Kwh*	*Purchased from Kwh*	*Sold to Kwh*	*Pu*
Jersey Central Power & Light Co.								
1934	273,797,197	.....	.....	1,554,020	56,345,000	11,900	432,000	
1935	318,921,795	.....	.....	969,776	77,333,196	25,400	488,500	
1936	341,556,150	.....	.....	1,240,545	70,694,825	108,600	.....	
1937	365,826,650	.....	.....	1,631,160	55,421,000	3,300	100	
Public Service Electric & Gas Co.								
1934	2,016,647,653	56,345,000	1,554,020	.....	.....	28,700,000	16,027,000	
1935	2,024,524,364	77,333,196	969,776	.....	.....	33,810,000	14,806,000	
1936	2,333,499,637	70,694,825	1,240,545	.....	.....	20,911,000	22,405,000	
1937	2,154,433,978	55,421,000	1,631,160	.....	.....	33,160,000	14,030,000	
New Jersey Power & Light Co.								
1934	313,805,540	432,000	11,900	16,027,000	28,700,000	.....	.....	
1935	305,061,020	488,500	25,400	14,606,000	33,810,000	.....	.....	
1936	358,116,690	.....	108,600	22,405,000	20,911,000	.....	.....	
1937	324,922,060	100	3,300	14,030,000	33,150,000	.....	.....	
Staten Island Edison Corporation								
1934	110,081,700	.....	.....	3,826,100	3,033,800	.....	.....	
1935	112,189,400	.....	.....	3,453,500	3,147,300	.....	.....	
1936	119,435,360	.....	.....	3,266,600	3,111,400	.....	.....	
1937	127,055,000	.....	.....	3,093,400	3,119,200	.....	.....	

Data from System Report to the Federal Power Commission

COMMISSION'S EXHIBIT NO. 6

VAILABLE FOR THE PRINCIPAL UTILITY SYSTEMS AFFECTED BY THE OPERATIONS OF JERSEY CENTRAL POWER AND LIGHT COMPANY

al Power Co.	TRANSACTIONS WITH OTHER SYSTEMS								
	Public Service Electric & Gas Co.		New Jersey Power & Light Co.		Staten Island Edison Corporation		Other Systems		Net Available for System
Sold to Kwh	Purchased from Kwh	Sold to Kwh	Purchased from Kwh	Sold to Kwh	Purchased from Kwh	Sold to Kwh	Purchased from Kwh	Sold to Kwh	Kwh
.....	1,554,020	56,345,000	11,900	432,000	.....	.....	.....	.....	218,586,117
.....	969,776	77,333,196	25,400	488,500	.....	.....	.....	.....	242,095,275
.....	1,240,545	70,694,825	108,600	.....	.....	.....	.....	.....	271,993,270
.....	1,631,160	55,421,000	3,300	100	.....	.....	.....	6,020,193	305,969,817
1,554,020	.....	.....	28,700,000	16,027,000	3,033,800	3,828,100	145,614,124	94,554,564	2,134,376,893
969,776	.....	.....	33,810,000	14,806,000	3,147,300	3,453,500	226,953,475	79,041,384	2,267,697,675
1,240,545	.....	.....	20,911,000	22,405,000	3,111,400	3,286,600	235,558,077	107,164,200	2,529,678,594
1,631,160	.....	.....	33,160,000	14,030,000	3,119,200	3,093,400	556,568,572	39,166,500	2,744,771,690
11,900	16,027,000	28,700,000	.....	.....	.....	.....	64,460,850	220,973,983	145,039,507
25,400	14,606,000	33,810,000	.....	.....	.....	.....	75,990,528	206,121,817	156,188,831
108,600	22,405,000	20,911,000	.....	.....	.....	.....	44,806,994	217,170,895	187,355,389
3,300	14,030,000	33,150,000	.....	.....	.....	.....	70,633,341	174,247,231	202,184,970
.....	3,826,100	3,033,800	.....	.....	.....	.....	.....	.....	110,876,000
.....	3,453,500	3,147,300	.....	.....	.....	.....	.....	.....	112,495,600
.....	3,266,600	3,111,400	.....	.....	.....	.....	.....	.....	119,610,560
.....	3,093,400	3,119,200	.....	.....	.....	.....	.....	.....	127,029,200

Data from System Report to the Federal Power Commission

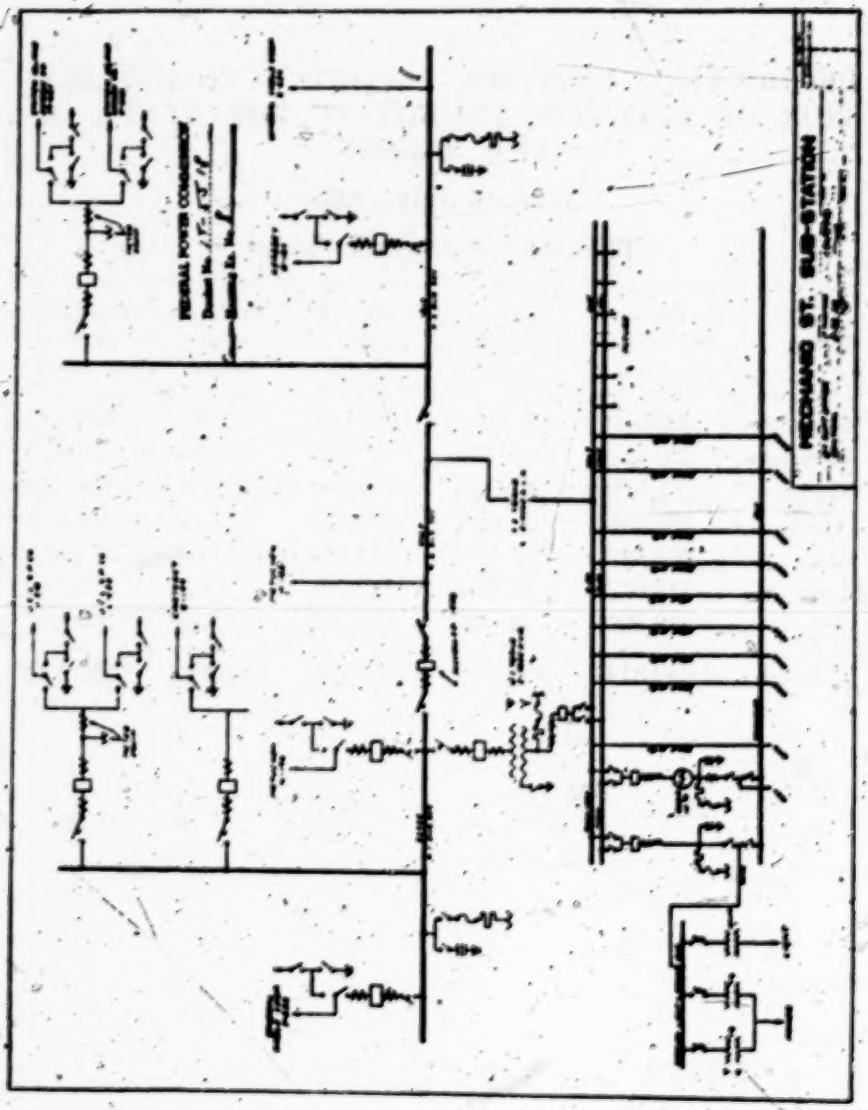
COMMISSION'S EXHIBIT NO. 7

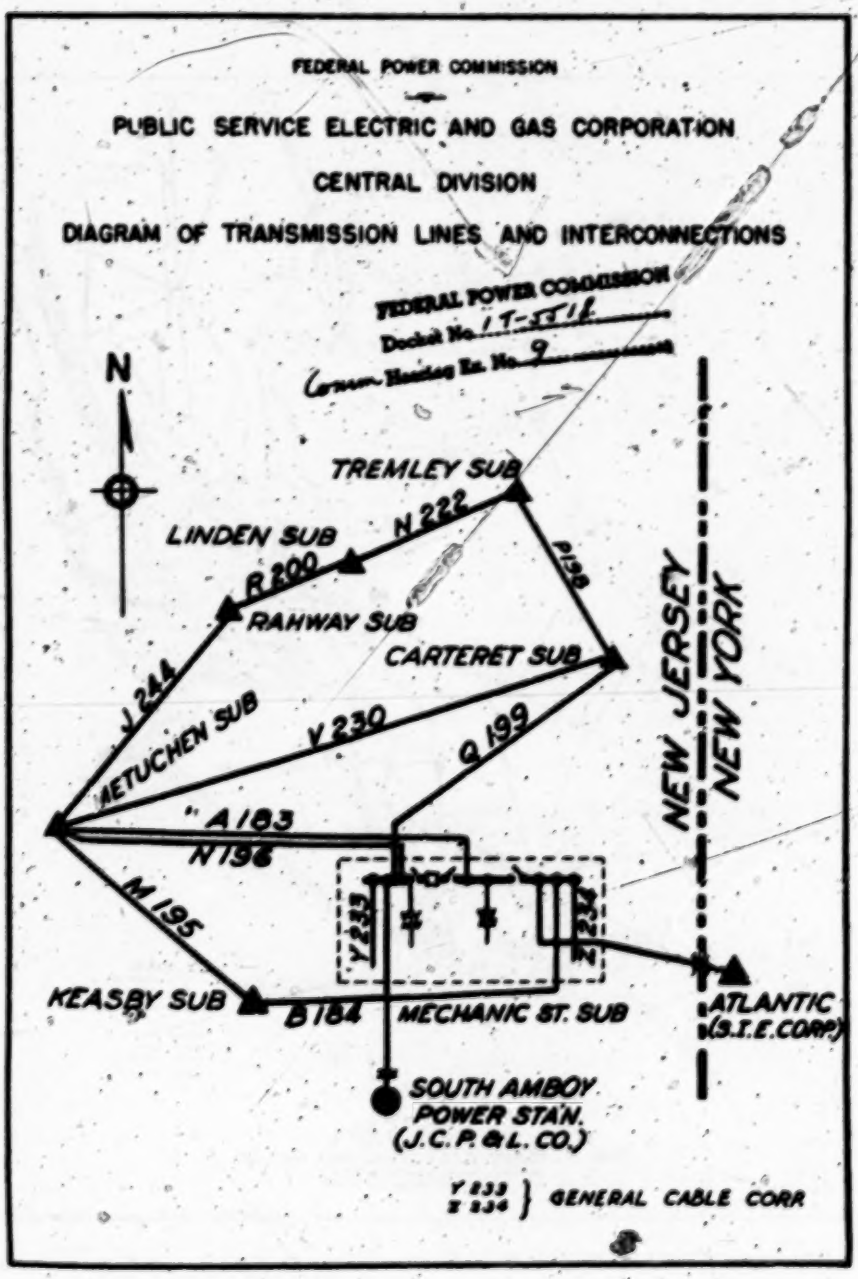
PRODUCTION, EXPORTS, IMPORTS AND UTILIZATION OF ELECTRIC ENERGY IN THE STATE OF NEW JERSEY

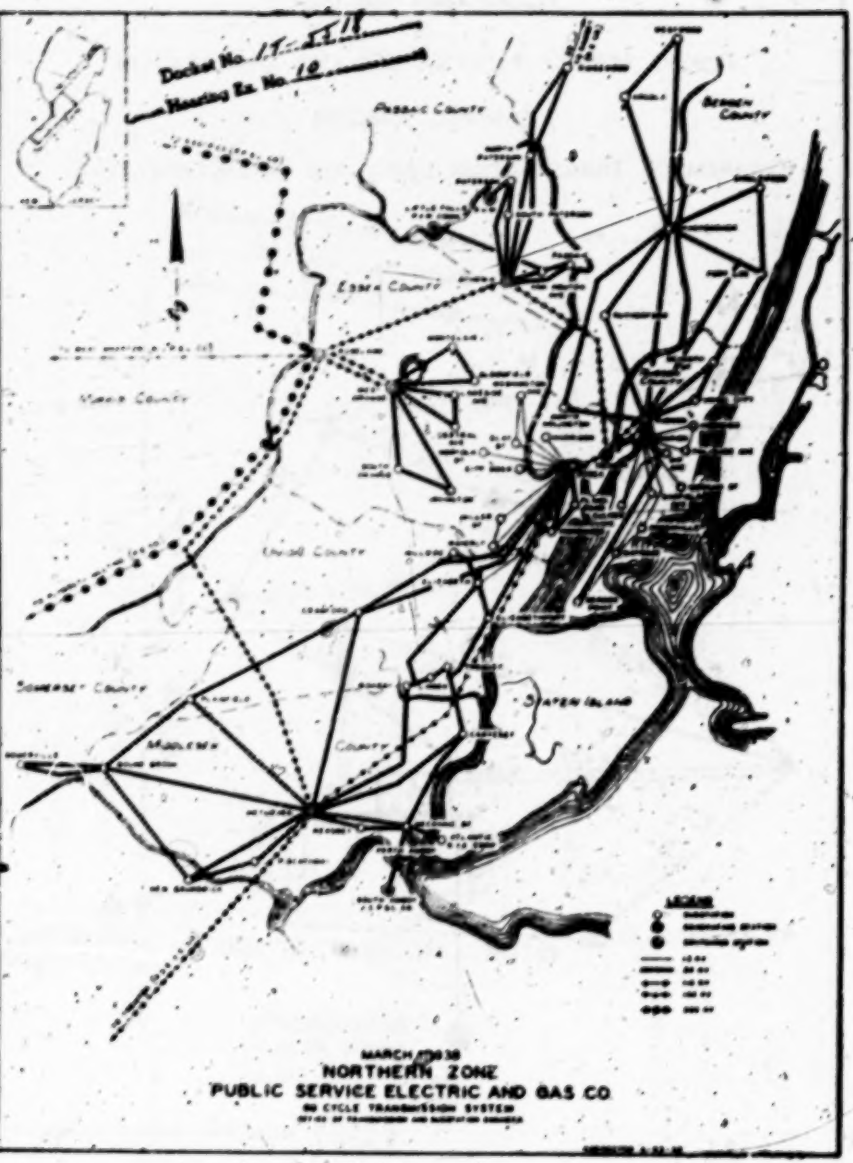
January-July, 1938

Thousand Kilowatts Hours

Month	*Production in the State of New Jersey*	*Imports from other States*	*Production and Imports*	*Exports to other States*	*Utilization in the State of New Jersey*
January	300,076	57,056	357,132	52,281	304,851
February	250,460	67,926	318,386	46,944	271,442
March	277,679	67,005	344,684	46,498	298,186
April	275,436	52,897	328,333	56,716	271,617
May	282,582	52,176	334,758	61,903	272,855
June	315,072	34,219	349,291	72,508	276,783
July	338,509	24,688	363,197	77,146	286,051
Total	2,039,814	355,967	2,395,761	413,996	1,981,785


FEDERAL POWER COMMISSION
RICHLAND ST. SUB-STATION


FEDERAL POWER COMMISSION
PUBLIC SERVICE ELECTRIC AND GAS CORPORATION
CENTRAL DIVISION
DIAGRAM OF TRANSMISSION LINES AND INTERCONNECTIONS
FEDERAL POWER COMMISSION
Docket No. IT-5316
Comm. Hearing Ex. No. 9
N
TREMLEY SUB
LINDEN SUB
N 222
R 200
P 198
RAHWAY SUB
CARTERET SUB
J 244
METUCHEN SUB
V 230
Q 199
A 183
N 196
M 195
Y 233
Z 234
KEASBY SUB
B 184
MECHANIC ST. SUB
NEW JERSEY
NEW YORK
ATLANTIC
(S.I.E. CORP.)
SOUTH AMBOY
POWER STAN.
(J.C.P.&L. CO.)
Y 833
Z 834
GENERAL CABLE CORP.


Docket No. 11-11-11
Hearing Ex. No. 10
Passaic County
Bergen County
Essex County
Union County
Somerset County
Middlesex County
Staten Island
NORTHERN ZONE
PUBLIC SERVICE ELECTRIC AND GAS CO

COMMISSION'S EXHIBIT NO. 11

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
MECHANICS ST. SUBSTATION
INSTRUMENT READINGS RECORDED ON
SUBSTATION LOG SHEETS

Year Month Day	Hour	J.C.P.& L.Co. IN	S.I.Ed. Corp. OUT	Mechanic St. Sub. Local Load	Mechanic St. Sub. General Cable Load	Carteret Substation Line Q 199	Keasbey Substation Line B 184	Metuchen Sub. Line A 183	Metuchen Sub. Line N 196
		Kws.	Kws.	Kva.	Amps. (1)	Amps. (2)	Amps. (2)	Amps. (2)	Amps. (2)
1937									
1-26	8:30 P. M.	19,000	1,000	3,973	135	180	210	150	150
1-26	9:00 P. M.	19,000	1,500	3,635	120	225	225	180	165
1-26	9:30 P. M.	21,000	1,000	3,457	135	240	240	270	225
1-26	10:00 P. M.	20,000	2,500	3,277	120	225	255	270	225
1-27	10:30 P. M.	18,000	1,500	2,993	150	225	240	270	225
1-27	11:00 P. M.	16,000	1,000	2,515	165	180	150	165	150
1-28	6:30 P. M.	21,000	2,000	4,557	75	270	300	330	270
1-28	7:30 A. M.	21,000	500	3,022	150	270	300	300	300
2-25	5:30 P. M.	20,000	500	4,216	210	270	225	240	225
7-7	6:30 P. M.	12,000	2,000	3,759	90	240	150	150	120
7-7	7:30 P. M.	11,000	500	3,556	75	240	150	180	150
7-9	3:00 A. M.	12,000	500	3,125	75	210	210	225	180
7-9	4:00 A. M.	10,000	500	3,125	75	210	150	195	150
7-11	7:30 P. M.	11,000	1,000	3,125	60	180	210	270	210

Commission's Exhibit No. 11

Year Month Day	Hour	J.C.P. & L. Co/ IN	S.I.Ed. Corp. OUT	Mechanic St. Sub. Local Load	Mechanic St. Sub. General Cable Load	Carteret Substation Line Q 199	Keasbey Substation Line B 184	Metuchen Sub. Line A 183	Metuchen Sub. Line N 196
		Kws.	Kws.	Kva.	Amps. (1)	Amps. (2)	Amps. (2)	Amps. (2)	Amps. (2)
7-11	8:00 P. M.	10,000	500	3,379	60	150	210	210	180
7-19	7:00 A. M.	10,000	2,000	2,717	60	150	150	180	150
7-20	6:30 A. M.	11,000	500	2,667	60	150	150	180	150
7-21	4:00 P. M.	12,000	1,000	4,850	165	240	210	270	
7-26	11:00 P. M.	11,000	2,000	3,708	75	210	150	180	150
7-28	5:00 P. M.	11,000	1,000	3,708	75	165	150	165	150
7-29	5:00 A. M.	10,000	500	2,743	60	180	135	150	150
7-30	5:00 P. M.	13,000	1,000	3,759	60	240	150	165	150
8-2	10:30 P. M.	12,000	500	3,982	105	240	150	180	150
8-4	6:00 P. M.	10,000	4,000	3,750	105	270	280	210	150
8-5	7:00 A. M.	14,000	1,000	2,819	60	180	150	180	150
8-5	7:30 A. M.	11,000	1,000	3,450	60	210	120	180	150
8-5	8:00 A. M.	10,000	1,000	4,334	60	150	120	150	150
8-7	4:00 A. M.	12,000	500	2,845	60	180	180	180	150
8-10	6:00 A. M.	12,000	1,000	2,743	60	210	210	270	210
8-11	4:00 A. M.	14,000	500	2,845	60	210	210	180	150
8-17	7:00 A. M.	14,000	1,000	2,946	75	150	150	150	150
8-22	12:00 N	13,000	500	3,528	60	210	210	210	180
8-24	10:00 P. M.	12,000	500	3,982	60	240	150	150	150
9-4	10:00 P. M.	10,000	500	4,608	60	210	90	150	150
9-10	11:30 A. M.	10,000	1,000	5,093	120	270	75	180	150
9-16	12:00 M	14,000	500	3,962	135	240	150	180	150
9-17	4:00 A. M.	12,000	500	2,489	60	150	120	150	150

Year Month Day	Hour	J.C.P. & L. Co. IN	S.I.Ed. Corp. OUT	Mechanic St. Sub. Local Load	Mechanic St. Sub. General Cable Load	Carteret Substation Line Q 199	Keasbey Substation Line B 184	Metuchen Sub. Line A 183	Metuchen Sub. Line N 196
		Kws.	Kws.	Kva.	Amps. (1)	Amps. (2)	Amps. (2)	Amps. (2)	Amps. (2)
9-18	2:30 P. M.	14,000	1,000	3,302	60	180	180	180	150
9-20	10:00 P. M.	11,000	1,000	3,730	60	270	90	150	120
9-20	10:30 P. M.	10,000	500	3,500	60	300	90	150	120
9-20	11:00 P. M.	12,000	1,000	3,328	60	270	90	150	120
9-26	10:00 P. M.	10,000	2,000	3,406	60	150	90	150	120
9-26	10:30 P. M.	10,000	500	3,096	60	180	150	180	150
9-26	11:00 P. M.	12,000	500	2,946	60	180	180	180	150
9-27	2:30 P. M.	12,000	500	5,200	90	330	0	210	165
9-28	8:30 P. M.	15,000	500	4,788	75	330	150	165	150
9-30	1:00 P. M.	14,000	500	4,687	135	0	180	210	180
10-2	12:00 M	13,000	1,000	3,277	60	270	180	180	150
10-4	5:00 P. M.	12,000	1,000	3,906	90	300	150	180	150
10-7	9:00 A. M.	12,000	1,500	4,886	135	330	120	0	150
10-8	11:30 A. M.	14,000	500	5,000	75	360	150	210	180
10-9	10:00 P. M.	12,000	500	4,198	60	240	150	150	150
10-11	12:30 P. M.	12,000	500	3,500	105	360	0	210	150
10-16	7:00 P. M.	12,000	500	5,080	60	300	150	180	150
10-17	9:00 P. M.	12,000	500	3,404	60	240	120	150	90
10-19	1:00 A. M.	11,000	1,000	2,642	60	300	150	180	150
10-25	8:00 P. M.	12,000	500	4,939	60	330	150	180	150
10-26	11:00 P. M.	11,000	2,000	3,200	60	270	120	150	120
10-27	8:00 P. M.	12,000	1,000	4,838	60	330	120	150	150
10-31	5:30 P. M.	10,000	1,500	3,174	60	180	150	150	120

Year Month Day	Hour	J.C.P.& L.Cp. IN	S.I.Ed. Corp. OUT	Mechanic St. Sub. Local Load	Mechanic St. Sub. General Cable Load	Carteret Substation Line Q 199	Keasbey Substation Line B 184	Metuchen Sub. Line A 183	Metuchen Sub. Line N 196
		Kws.	Kws.	Kva.	Amps. (1)	Amps. (2)	Amps. (2)	Amps. (2)	Amps. (2)
11-1	7:00 P. M.	13,000	500	4,965	60	330	120	150	150
11-4	8:30 P. M.	12,000	500	4,648	60	330	120	150	120
11-5	5:30 P. M.	13,000	1,500	5,600	60	360	150	180	150
11-12	8:00 P. M.	12,000	500	5,156	60	300	120	150	120
11-16	7:00 P. M.	16,000	1,000	5,100	60	390	150	180	165
11-24	8:00 A. M.	10,000	2,000	3,730	60	270	150	210	180
11-27	11:00 P. M.	10,000	500	3,021	60	210	150	150	150
12-1	6:30 P. M.	13,000	500	5,257	60	270	150	210	180
12-9	10:30 P. M.	11,000	500	3,383	75	270	180	195	165
12-10	9:30 P. M.	12,000	500	4,216	75	285	120	150	120
12-15	8:30 P. M.	10,000	500	5,217	75	300	120	150	120
12-15	9:00 P. M.	10,000	1,000	4,838	75	270	90	150	90
12-15	9:30 P. M.	10,000	500	4,160	60	270	90	150	120
12-15	10:00 P. M.	11,000	500	3,805	75	300	90	150	120
12-16	12:00 M	11,000	500	3,988	150	300	150	150	150
12-16	12:30 P. M.	14,000	500	3,404	135	300	150	180	150
12-16	1:00 P. M.	11,000	500	4,225	90	330	90	150	120
12-17	7:30 A. M.	13,000	1,000	2,867	60	225	210	210	180
12-20	9:30 P. M.	13,000	500	4,696	75	330	180	180	150
12-22	10:00 P. M.	13,000	1,000	4,334	75	330	120	150	90
12-23	8:00 P. M.	14,000	1,500	5,594	75	300	120	120	90

Year Month Day	Hour	J. C. P. & L. Co. IN	S. I. Ed. Corp. OUT	Mechanic St. Sub. Local Load	Mechanic St. Sub. General Cable Load	Carteret Substation Line Q 199	Keasbey Substation Line B 184	Metuchen Sub. Line A 183	Metuchen Sub. Line N 196
		Kws.	Kws.	Kva.	Amps. (1)	Amps. (2)	Amps. (2)	Amps. (2)	Amps. (2)
1938									
1-6	7:00 P. M.	9,000	500	4,687	60	270	90	150	150
1-6	7:30 P. M.	10,000	500	4,572	75	270	90	150	120
1-10	5:00 P. M.	14,000	2,000	5,080	75	270	150	150	150
1-12	9:00 A. M.	13,000	500	4,425	105	360	150	210	150
1-12	9:30 A. M.	12,000	500	4,900	105	330	120	180	150
1-18	8:30 P. M.	12,000	1,000	4,216	105	330	165	180	150
1-19	3:30 P. M.	11,000	2,000	4,572	75	315	165	225	180
1-19	4:00 P. M.	13,000	500	4,352	90	300	180	240	210
1-19	4:30 P. M.	9,000	500	4,954	90	240	180	210	180
1-19	5:00 P. M.	9,000	500	5,108	90	270	180	180	150
1-24	11:00 P. M.	10,000	1,000	2,687	60	270	180	210	180
2-3	3:00 P. M.	13,000	1,000	4,710	75	300	210	240	210
2-3	3:30 P. M.	11,000	1,000	4,454	75	270	210	270	210
2-4	10:30 P. M.	10,000	1,000	3,174	60	225	150	210	150
2-4	11:00 P. M.	11,000	1,000	2,740	60	225	150	210	150
2-13	8:30 P. M.	11,000	1,500	3,251	60	210	150	180	150
2-17	8:30 P. M.	12,000	500	4,191	165	270	180	270	240
2-18	7:30 P. M.	12,000	1,000	4,826	75	300	150	180	150
2-18	8:00 P. M.	11,000	1,000	4,684	105	270	180	210	180
2-18	8:30 P. M.	10,000	1,500	4,403	75	270	150	180	150
2-18	9:00 P. M.	10,000	500	4,096	75	240	150	180	150

Year Month Day	Hour	J.C.P. & L.Co. IN	S.I.Ed. Corp. OUT	Mechanic St. Sub. Local Load	Mechanic St. Sub. General Cable Load	Carteret Substation Line Q 199	Keasbey Substation Line B 184	Metuchen Sub. Line A 183	Metuchen Sub. Line N 196
		Kws.	Kws.	Kva.	Amps. (1)	Amps. (2)	Amps. (2)	Amps. (2)	Amps. (2)
2-23	9:00 A. M.	12,000	1,000	4,572	60	330	180	270	225
2-24	9:30 A. M.	12,000	500	4,486	105	330	180	240	210
2-28	7:30 P. M.	10,000	500	4,547	60	270	90	150	120
3-9	9:30 P. M.	10,000	500	3,810	105	300	150	180	150
3-11	9:00 P. M.	11,000	1,000	4,216	105	300	120	150	120
3-15	9:00 P. M.	12,000	1,000	4,013	90	300	150	180	150
3-16	1:00 P. M.	12,000	500	4,400	135	300	90	150	120
3-22	9:00 A. M.	10,000	500	4,231	90	300	180	210	0
3-22	9:30 A. M.	11,000	500	4,464	105	300	150	210	0
3-22	10:00 A. M.	13,000	500	4,600	105	300	150	210	0
3-31	3:00 P. M.	11,000	1,500	4,788	105	240	150	150	120
3-31	3:30 P. M.	9,000	1,500	4,838	105	210	150	180	150
3-31	4:00 P. M.	7,000	1,000	4,990	75	210	150	150	120
3-31	4:30 P. M.	9,000	1,000	4,420	75	240	150	180	150
3-31	5:00 P. M.	10,000	500	4,166	75	240	150	180	150
4-6	3:00 P. M.	11,000	1,000	5,100	90	330	150	0	150
4-6	3:30 P. M.	11,000	500	4,950	90	330	150	0	165
4-7	8:30 A. M.	11,000	500	3,850	75	300	150	150	150
4-11	6:00 P. M.	9,000	2,500	3,251	90	180	90	150	120
4-18	6:30 P. M.	10,000	500	3,683	60	225	150	165	150
4-26	11:30 A. M.	11,000	500	4,725	135	300	90	180	150
4-27	10:30 A. M.	12,000	500	4,500	135	330	210	0	270
4-27	11:00 A. M.	9,000	1,500	4,500	135	300	180	0	240

Year Month Day	Hour	J.C.P. & L.Co. IN	S.I.Ed. Corp. OUT	Mechanic St. Sub. Local Load	Mechanic St. Sub. General Cable Load	Carteret Substation Line Q 199	Keasbey Substation Line B 184	Metuchen Sub. Line A 183	Metuchen Sub. Line N 196
		Kws.	Kws.	Kva.	Amps. (1)	Amps. (2)	Amps. (2)	Amps. (2)	Amps. (2)
4-27	11:30 A. M.	11,000	500	4,450	135	330	180	0	240
5-3	3:00 P. M.	10,000	1,000	4,920	240	240	180	0	240
5-3	3:30 P. M.	10,000	1,000	4,811	225	270	210	0	225
5-4	2:00 P. M.	10,000	500	4,738	105	210	90	90	90
5-4	2:30 P. M.	12,000	500	4,489	105	210	90	120	90
5-4	3:00 P. M.	12,000	1,000	4,638	105	240	120	120	90
5-10	3:00 P. M.	11,000	500	4,650	135	300	150	150	120
5-10	3:30 P. M.	10,000	1,000	4,698	120	300	120	150	150
5-10	4:00 P. M.	10,000	500	4,445	105	270	120	150	150
5-10	4:30 P. M.	11,000	2,500	4,147	75	270	150	150	150
5-10	5:00 P. M.	9,000	500	3,916	75	210	120	150	120
5-11	2:00 P. M.	11,000	1,000	4,475	150	270	60	120	120
5-11	2:30 P. M.	11,000	1,000	4,500	105	300	90	150	120
5-11	3:00 P. M.	11,000	1,000	4,561	150	270	90	150	120
5-11	3:30 P. M.	14,000	1,000	4,284	105	300	120	180	150
5-12	10:00 A. M.	12,000	1,500	4,650	105	300	120	150	150
5-18	11:30 A. M.	13,000	1,500	4,650	90	360	150	210	180
5-19	4:30 P. M.	13,000	1,000	4,064	60	240	150	210	210
5-20	10:30 A. M.	16,000	1,000	4,325	120	330	180	240	180
5-20	11:00 A. M.	14,000	500	4,425	135	330	150	210	180
5-20	11:30 A. M.	13,000	1,500	4,575	105	300	150	180	150
5-23	10:30 A. M.	16,000	500	4,700	60	330	195	210	180
5-23	11:00 A. M.	12,000	1,000	4,700	60	315	120	165	150

Year Month Day	Hour	J.C.P. & L. Co. IN	S.I.Ed. Corp. OUT	Mechanic St. Sub. Local Load	Mechanic St. Sub. General Cable Load	Carteret Substation Line Q 199	Keasbey Substation Line B 184	Metuchen Sub. Line A 183	Metuchen Sub. Line N 196
		Kws.	Kws.	Kva.	Amps. (1)	Amps. (2)	Amps. (2)	Amps. (2)	Amps. (2)
5-23	11:30 A. M.	15,000	1,500	4,800	60	315	150	180	165
5-31	9:30 A. M.	12,000	1,000	4,950	105	180	120	165	150
6-1	9:30 A. M.	14,000	2,000	4,050	120	300	120	150	150
6-2	8:30 A. M.	11,000	1,000	3,650	120	270	120	150	120
6-7	4:30 P. M.	14,000	500	4,284	105	225	180	225	210
6-8	11:00 A. M.	12,000	500	4,850	150	300	90	150	120
6-10	8:00 A. M.	12,000	500	3,302	75	180	150	180	150
6-12	11:00 P. M.	13,000	500	2,943	60	210	180	180	180
6-13	12:00 M.	12,000	1,500	3,760	75	270	150	210	150
6-14	9:00 A. M.	12,000	500	4,700	90	270	90	150	150
6-15	8:30 A. M.	14,000	500	4,300	150	300	150	165	150
6-16	2:30 P. M.	13,000	2,000	4,875	120	240	90	330	0
6-20	9:30 A. M.	12,000	1,500	5,166	75	330	120	150	120
6-22	4:00 P. M.	13,000	1,500	4,600	90	270	60	150	120
6-23	9:00 A. M.	14,000	1,500	4,525	75	300	0	225	180
6-24	9:00 A. M.	12,000	2,000	4,500	105	225	150	165	150
6-25	4:00 P. M.	13,000	500	3,377	60	195	150	165	150
6-26	10:30 A. M.	14,000	1,000	2,278	60	150	180	225	180
7-11	10:30 P. M.	10,000	500	3,700	60	240	50	120	60
7-12	5:00 P. M.	12,000	1,000	3,800	60	240	150	180	150
7-14	2:30 P. M.	11,000	500	5,412	135	300	60	150	90
7-18	5:00 P. M.	11,000	500	4,082	60	210	150	180	150
7-19	12:30 P. M.	14,000	500	3,700	90	240	150	180	150

Year Month Day	Hour	I.C.P. & L. Co. IN	S.I. Ed. Corp. OUT	Mechanic St. Sub. Local Load	General Cable Load	Carteret Substation Line Q 199	Keasbey Substation Line B 184	Metuchen Sub. Line A 183	Metuchen Sub. Line N 196
		Kws.	Kws.	Kva.	Amps. (1)	Amps. (2)	Amps. (2)	Amps. (2)	Amps. (2)
7-25	3:00 P. M.	14,000	500	5,275	120	300	150	180	150
7-25	3:30 P. M.	12,000	500	5,000	105	270	150	180	150
7-25	4:00 P. M.	11,000	1,000	5,115	75	270	150	180	150
8-1	7:00 A. M.	10,000	2,000	2,475	60	150	120	150	120
8-5	2:00 P. M.	12,000	1,500	5,264	60	270	150	195	165
8-17	8:00 A. M.	12,000	3,000	4,150	105	210	180	240	210
8-26	4:30 P. M.	12,000	2,000	4,330	60	420	120	150	150
8-26	5:00 P. M.	11,000	2,000	3,739	60	330	90	120	90
8-28	10:30 P. M.	11,000	1,500	3,150	60	210	120	180	150
8-29	1:30 P. M.	12,000	3,000	4,969	120	285	75	150	150
9-2	9:00 A. M.	10,000	500	4,034	60	300	150	180	150
9-5	11:00 P. M.	11,000	500	2,850	60	210	180	225	195
9-6	2:00 P. M.	11,000	2,000	5,018	90	300	120	180	150

(1) Sum of 6 ammeter readings: Three phases and two circuits.
(2) Sum of 3 ammeter readings.

Commission's Exhibit No. 11

COMMISSION'S EXHIBIT NO. 12

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
MECHANICS ST. SUBSTATION
SUBSTATION LOAD AND SUPPLY

Year Month Day	Hour	Received from J. C. P. & L. Co. Kws.	Mechanics St. Substation Load: Local Load Kws.	General Cable Load Kws.	Staten Island Edison Corp. Kws.	Total Load at Mechanics Kws.	Surplus Power at Mechanics Kws.
1937							
1-26	8:30 P. M.	10,000	2,820	1,650	1,000	5,470	13,530
1-26	9:00 P. M.	19,000	2,580	1,470	1,500	5,550	13,450
1-26	9:30 P. M.	21,000	2,450	1,650	1,000	5,100	15,900
1-26	10:00 P. M.	20,000	2,330	1,470	2,500	6,300	13,700
1-27	10:30 P. M.	18,000	2,130	1,830	1,500	5,460	12,540
1-27	11:00 P. M.	16,000	1,790	2,020	1,000	4,810	11,190
1-28	6:30 P. M.	21,000	3,240	920	2,000	6,160	14,840
1-28	7:30 A. M.	21,000	2,150	1,830	500	4,480	16,520
2-25	5:30 P. M.	20,000	2,990	2,570	500	6,060	13,940
7-7	6:30 P. M.	12,000	2,670	1,100	2,000	5,770	6,230
7-7	7:30 P. M.	11,000	2,520	920	500	3,940	7,060
7-9	3:00 A. M.	12,000	2,220	920	500	3,640	8,360

Commission's Exhibit No. 12

Year Month Day	Hour	Received from J. C. P. & L. Co. Kws.	Local Load Kws.	Mechanics St. Substation Load General Cable Load Kws.	Staten Island Edison Corp. Kws.	Total Load at Mechanics Kws.	Surplus Power at Mechanics Kws.
7-9	4:00 A. M.	10,000	2,220	920	500	3,640	6,360
7-11	7:30 P. M.	11,000	2,220	730	1,000	3,950	7,050
7-11	8:00 P. M.	10,000	2,400	730	500	3,630	6,370
7-19	7:00 A. M.	10,000	1,930	730	2,000	4,660	6,340
7-20	6:30 A. M.	11,000	1,890	730	500	3,120	7,660
7-21	4:00 P. M.	12,000	3,440	2,020	1,000	6,460	5,540
7-26	11:00 P. M.	11,000	2,630	920	2,000	5,550	5,450
7-28	5:00 P. M.	11,000	2,630	920	1,000	4,550	6,450
7-29	5:00 A. M.	10,000	1,950	730	500	3,180	6,620
7-30	5:30 P. M.	13,000	2,670	730	1,000	4,400	8,600
8-2	10:30 P. M.	12,000	2,830	1,280	500	4,610	7,390
8-4	6:00 P. M.	10,000	2,660	1,280	4,000	7,940	2,060
8-5	7:00 A. M.	14,000	2,000	730	1,000	3,730	10,270
8-5	7:30 A. M.	11,000	2,450	730	1,000	4,180	6,820
8-5	8:00 A. M.	10,000	3,080	730	1,000	4,810	5,190
8-7	4:00 A. M.	12,000	2,020	730	500	3,250	8,750
8-10	6:00 A. M.	12,000	1,950	730	1,000	3,680	8,320
8-11	4:00 A. M.	14,000	2,020	730	500	3,250	10,750
8-17	7:00 A. M.	14,000	2,090	920	1,000	4,010	9,990
8-22	12:00 N.	13,000	2,500	730	500	3,730	9,270

Year Month Day	Hour	Received from J. C. P. & L. Co. Kws.	Mechanics St. Substation Load — Local Load Kws.	General Cable Load Kws.	Staten Island Edison Corp. Kws.	Total Load at Mechanics Kws.	Surplus Power at Mechanics Kws.
8-24	10:00 P. M.	12,000	2,830	730	500	4,060	7,940
9-4	10:00 P. M.	10,000	3,270	730	500	4,500	5,500
9-10	11:30 A. M.	10,000	3,620	1,470	1,000	6,090	3,910
9-16	12:00 M.	14,000	2,810	1,650	500	4,960	9,040
9-17	4:00 A. M.	12,000	1,770	730	500	3,000	9,000
9-18	2:30 P. M.	14,000	2,340	730	1,000	4,070	9,930
9-20	10:00 P. M.	11,000	2,650	730	1,000	4,380	6,620
9-20	10:30 P. M.	10,000	2,490	730	500	3,720	6,280
9-20	11:00 P. M.	12,000	2,360	730	1,000	4,090	7,910
9-26	10:00 P. M.	10,000	2,420	730	2,000	5,150	4,850
9-26	10:30 P. M.	10,000	2,200	730	500	3,430	6,570
9-26	11:00 P. M.	12,000	2,090	730	500	3,320	8,680
9-27	2:30 P. M.	12,000	3,690	1,100	500	5,290	6,710
9-28	8:30 P. M.	15,000	3,400	920	500	4,820	10,180
9-30	1:00 P. M.	14,000	3,330	1,650	500	5,480	8,520
10-2	12:00 M.	13,000	2,330	730	1,000	4,060	8,940
10-4	5:00 P. M.	12,000	2,770	1,100	1,000	4,870	7,130
10-7	9:00 A. M.	12,000	3,470	1,650	1,500	6,620	5,380
10-8	11:30 A. M.	14,000	3,550	920	500	4,970	9,030
10-9	10:00 P. M.	12,000	2,980	730	500	4,210	7,790

Year Month Day	Hour	Received from J. C. P. & L. Co. Kws.	Local Load Kws.	Mechanics St. Substation Load — General Cable Load Kws.	Staten Island Edison Corp. Kws.	Total Load at Mechanics Kws.	Surplus Power at Mechanics Kws.
10-11	12:30 P. M.	12,000	2,480	1,280	500	4,260	7,740
10-16	7:00 P. M.	12,000	3,610	730	500	4,840	7,160
10-17	9:00 P. M.	12,000	2,420	730	500	3,650	8,350
10-19	1:00 A. M.	11,000	1,870	730	1,000	3,600	7,400
10-25	8:00 P. M.	12,000	3,510	730	500	4,740	7,260
10-26	11:00 P. M.	11,000	2,270	730	2,000	5,000	6,000
10-27	8:00 P. M.	12,000	3,430	730	1,000	5,160	6,840
10-31	5:30 P. M.	10,000	2,250	730	1,500	4,480	5,520
11-1	7:00 P. M.	13,000	3,530	730	500	4,760	8,240
11-4	8:30 P. M.	12,000	3,500	730	500	4,530	7,470
11-5	5:30 P. M.	13,000	3,980	730	1,500	6,210	6,790
11-12	8:00 P. M.	12,000	3,660	730	500	4,820	7,110
11-16	7:00 P. M.	16,000	3,620	730	1,000	5,350	10,650
11-24	8:00 A. M.	10,000	2,650	730	2,000	5,380	4,620
11-27	11:00 P. M.	10,000	2,140	730	500	3,370	6,630
12-1	6:30 P. M.	13,000	3,730	730	500	4,960	8,040
12-9	10:30 P. M.	11,000	2,400	920	500	3,820	7,180
12-10	9:30 P. M.	12,000	2,990	920	500	4,410	7,590
12-15	8:30 P. M.	10,000	3,700	920	500	5,120	4,880
12-15	9:00 P. M.	10,000	3,430	920	1,000	5,350	4,650

Year Month Day	Hour	Received from J. C. P. & L. Co. Kws.	Mechanics St. Substation Load: Local Load Kws.	General Cable Load Kws.	Staten Island Edison Corp. Kws.	Total Load at Mechanics Kws.	Surplus Power at Mechanics Kws.
12-15	9:30 P. M.	10,000	2,950	730	500	4,180	5,820
12-15	10:00 P. M.	11,000	2,700	920	500	4,120	6,880
12-16	12:00 M.	11,000	2,830	1,830	500	5,160	5,840
12-16	12:30 P. M.	14,000	2,420	1,650	500	4,570	9,430
12-16	1:00 P. M.	11,000	3,000	1,100	500	4,600	6,400
12-17	7:30 A. M.	13,000	2,040	730	1,000	3,770	9,230
12-20	9:30 P. M.	13,000	3,330	920	500	4,750	8,250
12-22	10:00 P. M.	13,000	3,080	920	1,000	5,000	8,000
12-23	8:00 P. M.	14,000	3,970	920	1,500	6,390	7,610
1938							
1-6	7:00 P. M.	9,000	3,330	730	500	4,560	4,440
1-6	7:30 P. M.	10,000	3,250	920	500	4,670	5,330
1-10	5:00 P. M.	14,000	3,610	920	2,000	6,530	7,470
1-12	9:00 A. M.	13,000	3,140	1,280	500	4,920	8,080
1-12	9.30 A. M.	12,000	3,480	1,280	500	5,260	6,740
1-18	8:30 P. M.	12,000	3,000	1,280	1,000	5,280	6,720
1-19	3:30 P. M.	11,000	3,250	920	2,000	6,170	4,830
1-19	4:00 P. M.	13,000	3,090	1,100	500	4,690	8,310
1-19	4:30 P. M.	9,000	3,520	1,100	500	5,120	3,880
1-19	5:00 P. M.	9,000	3,630	1,100	500	5,230	3,770

Year Month Day	Hour	Received from J. C. P. & L. Co. Kws.	Local Load Kws.	Mechanics St. Substation Load General Cable Load Kws.	Staten Island Edison Corp. Kws.	Total Load at Mechanics Kws.	Surplus Power at Mechanics Kws.
1-24	11:00 P. M.	10,000	1,910	730	1,000	3,640	6,360
2-3	3:00 P. M.	13,000	3,340	920	1,000	5,260	7,740
2-3	3:30 P. M.	11,000	3,160	920	1,000	5,080	5,920
2-4	10:30 P. M.	10,000	2,250	730	1,000	3,980	6,020
2-4	11:00 P. M.	11,000	1,950	730	1,000	3,680	7,320
2-13	8:30 P. M.	11,000	2,310	730	500	3,540	7,460
2-17	8:30 P. M.	12,000	2,980	2,020	500	5,500	6,500
2-18	7:30 P. M.	12,000	3,430	920	1,000	5,350	6,650
2-18	8:00 P. M.	11,000	3,330	1,280	1,000	5,610	6,390
2-18	8:30 P. M.	10,000	3,130	920	1,500	5,550	4,450
2-18	9:00 P. M.	10,000	2,910	920	500	4,330	5,670
2-23	9:00 A. M.	12,000	3,250	730	1,000	4,950	7,020
2-24	9:30 A. M.	12,000	3,190	1,280	500	4,970	7,030
2-28	7:30 P. M.	10,000	3,230	730	500	4,460	6,540
3-9	9:30 P. M.	10,000	2,710	1,280	500	4,490	5,510
3-11	9:00 P. M.	11,000	2,990	1,280	1,000	5,270	5,730
3-16	9:00 P. M.	12,000	2,850	1,100	1,000	4,930	7,050
3-16	1:00 P. M.	12,000	3,120	1,650	500	5,270	6,730
3-22	9:00 A. M.	10,000	3,000	1,100	500	4,600	5,400
3-22	9:30 A. M.	11,000	3,170	1,280	500	4,950	6,050

Mechanics St. Substation Load

Year Month Day	Hour	Received from J. C. P. & L. Co. Kws.	Local Load Kws.	General Cable Load Kws.	Staten Island Edison Corp. Kws.	Total Load at Mechanics Kws.	Surplus Power at Mechanics Kws.
3-22	10:00 A. M.	13,000	3,270	1,280	500	5,050	7,950
3-31	3:00 P. M.	11,000	3,460	1,280	1,500	6,180	4,820
3-31	3:30 P. M.	9,000	3,430	1,280	1,500	6,210	2,790
3-31	4:00 P. M.	7,000	3,540	920	1,000	5,460	1,540
3-31	4:30 P. M.	9,000	3,140	920	1,000	6,060	3,940
3-31	5:00 P. M.	10,000	2,960	920	500	4,380	5,620
4-6	3:00 P. M.	11,000	3,620	1,100	1,000	5,720	5,280
4-6	3:30 P. M.	11,000	3,510	1,100	500	5,110	5,890
4-7	8:30 A. M.	11,000	2,720	920	500	4,140	6,860
4-11	6:00 P. M.	9,000	2,310	1,100	2,500	5,910	3,090
4-18	6:30 P. M.	10,000	2,610	730	500	3,840	6,160
4-26	11:30 A. M.	11,000	3,350	1,650	500	5,600	5,500
4-27	10:30 A. M.	12,000	3,200	1,650	500	5,350	6,650
4-27	11:00 A. M.	9,000	3,200	1,650	1,500	6,350	2,650
4-27	11:30 A. M.	11,000	3,160	1,650	500	5,310	5,690
5-3	3:00 P. M.	10,000	3,490	2,930	1,000	7,420	2,580
5-3	3:30 P. M.	10,000	3,420	2,750	1,000	7,170	2,830
5-4	2:00 P. M.	10,000	3,360	1,280	500	5,140	4,860
5-4	2:30 P. M.	12,000	3,190	1,280	500	4,970	7,030
5-4	3:00 P. M.	12,000	3,290	1,280	1,000	5,570	6,430

Year Month Day	Hour	Received from J.C.P. & L. Co. Kws.	Local Load Kws.	Mechanics St. Substation Load: General Cable Load Kws.	Staten Island Edison Corp. Kws.	Total Load at Mechanics Kws.	Surplus Power at Mechanics Kws.
5-10	3:00 P. M.	11,000	3,300	1,660	500	5,450	5,550
5-10	3:30 P. M.	10,000	3,340	1,470	1,000	5,810	4,190
5-10	4:00 P. M.	10,000	3,160	1,280	500	4,940	5,060
5-10	4:30 P. M.	11,000	2,940	920	2,500	6,360	4,640
5-10	5:00 P. M.	9,000	2,780	920	500	4,200	4,800
5-11	2:00 P. M.	11,000	3,180	1,850	1,000	6,010	4,990
5-11	2:30 P. M.	11,000	3,200	1,280	1,000	5,480	5,520
5-11	3:00 P. M.	11,000	3,240	1,830	1,000	6,070	4,930
5-11	3:30 P. M.	14,000	3,040	1,280	1,000	5,320	8,680
5-12	10:00 A. M.	12,000	3,300	1,280	1,500	6,080	5,920
5-18	11:30 A. M.	13,000	3,300	1,100	1,500	5,900	7,100
5-19	4:30 P. M.	13,000	2,890	730	1,000	4,620	8,380
5-20	10:30 A. M.	16,000	3,070	1,470	1,000	5,540	10,460
5-20	11:00 A. M.	14,000	3,140	1,650	500	5,290	8,710
5-20	11:30 A. M.	13,000	3,250	1,280	1,500	6,030	6,970
5-23	10:30 A. M.	16,000	3,340	730	500	4,570	11,430
5-23	11:00 A. M.	12,000	3,340	730	1,000	5,070	6,930
5-23	11:30 A. M.	15,000	3,410	730	1,500	5,640	9,360
5-31	9:30 A. M.	12,000	3,610	1,280	1,000	5,790	6,210
6-1	9:30 A. M.	14,000	2,880	1,470	2,000	6,350	7,650

Year Month Day	Hour	Received from J.C.P. & L. Co. Kws.	Local Load Kws.	Mechanics St. Substation Load: General Cable Load Kws.	Staten Island Edison Corp. Kws.	Total Load at Mechanics Kws.	Surplus Power at Mechanics Kws.
6-2	8:30 A. M.	11,000	2,590	1,470	1,000	5,060	5,940
6-7	4:30 P. M.	14,000	3,040	1,280	500	4,820	9,180
6-8	11:00 A. M.	12,000	3,440	1,830	500	5,770	6,230
6-10	8:00 A. M.	12,000	2,340	920	500	3,760	8,240
6-12	11:00 P. M.	13,000	2,090	730	500	3,320	9,680
6-13	12:00 M.	12,000	2,680	920	1,500	5,100	8,900
6-14	9:00 A. M.	12,000	3,340	1,100	500	4,940	7,060
6-15	8:30 A. M.	14,000	3,050	1,830	500	5,380	8,620
6-16	2:30 P. M.	13,000	3,460	1,470	2,000	6,930	6,070
6-20	9:30 A. M.	12,000	3,670	920	1,500	6,090	5,910
6-22	4:00 P. M.	13,000	3,270	1,100	1,500	5,870	7,130
6-23	9:00 A. M.	14,000	3,210	920	1,500	5,630	8,370
6-24	9:00 A. M.	12,000	3,200	1,280	2,000	6,480	5,520
6-25	4:00 P. M.	13,000	2,400	730	500	3,630	9,370
6-26	10:30 A. M.	14,000	1,620	730	1,000	3,350	10,650
7-11	10:30 P. M.	10,000	2,630	730	500	3,860	6,140
7-12	5:00 P. M.	12,000	2,700	730	1,000	4,430	7,570
7-14	2:30 P. M.	11,000	3,840	1,650	500	5,990	5,010
7-18	5:00 P. M.	11,000	2,900	730	500	4,130	6,870
7-19	12:30 P. M.	14,000	2,630	1,100	500	4,230	9,770

Mechanics St. Substation Load

Year Month Day	Hour	Received from J.C.P. & L. Co. Kws.	Local Load Kws.	General Cable Load Kws.	Staten Island Edison Corp. Kws.	Total Load at Mechanics Kws.	Surplus Power at Mechanics Kws.
7-25	3:00 P. M.	14,000	3,750	1,470	500	5,720	8,280
7-25	3:30 P. M.	12,000	3,550	1,280	500	5,330	6,670
7-25	4:00 P. M.	11,000	3,630	920	1,000	5,550	5,450
8-1	7:00 A. M.	10,000	1,760	730	2,000	4,490	5,510
8-5	2:00 P. M.	12,000	3,740	730	1,500	5,970	6,030
8-17	8:00 A. M.	12,000	2,950	1,280	3,000	7,230	4,770
8-26	4:30 P. M.	12,000	3,070	730	2,000	5,800	6,200
8-26	5:00 P. M.	11,000	2,650	730	2,000	5,380	5,620
8-28	10:30 P. M.	11,000	2,240	730	1,500	4,470	6,530
8-29	1:30 P. M.	12,000	3,530	1,470	3,000	8,000	4,000
9-2	9:00 A. M.	10,000	2,860	730	500	4,090	5,910
9-5	11:00 P. M.	11,000	2,020	730	500	3,250	7,750
9-6	2:00 P. M.	11,000	3,560	1,100	2,000	6,660	4,340

Commission's Exhibit No. 12

COMMISSION'S EXHIBIT NO. 13

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
ENERGY SUPPLY AND LOADS AT THE SUBSTATIONS OF THE CENTRAL DIVISION
Taken from Substation Log Sheets

Month	Day	Hour	Energy Received from Jersey Central Power & Light Co. Kws.	Mechanics St. Substation: Local Load Kva.	Mechanics St. Substation: General Cable Coal Load Amps.	Energy Delivered to Staten Island Edison Corp. Kws.	Carteret Substation: Local Load Kva.	Carteret Substation: Foster Wheeler Load Kws.	Carteret Substation: U. S. Metals Load Kws.	Carteret Substation: P. & R. Creosote Load Kws.	Keasbey Substation Load Kva.	Rahway Substation Load Kva.	Linden Substation Load Kva.	Tremley Substation Load Kva.	Metuchen Substation Local Load 4 Kv. Kva.
1937															
January	26	8:30 P. M.	19,000	3,973	135	1,000	2,600	640	1,200	130	1,630	3,900		1,325	1,360
January	26	9:00 P. M.	19,000	3,635	120	1,500	2,500	680	1,150	120	1,630	3,650		1,300	1,320
January	26	9:30 P. M.	21,000	3,457	135	1,000	2,400	660	1,100	130	1,660	3,500		1,325	1,220
January	26	10:00 P. M.	20,000	3,277	120	2,500	2,100	580	1,150	120	1,450	3,200		1,400	1,180
August	5	7:00 A. M.	14,000	2,819	60	1,000	1,500	240	1,000	107	1,100	1,600	2,750	800	680
August	5	7:30 A. M.	11,000	3,450	60	1,000	1,600	720	1,050	122	1,180	1,920	3,100	875	600
August	5	8:00 A. M.	10,000	4,834	60	1,000	1,800	960	1,100	130	1,490	2,880	3,200	1,100	640
November	16	7:00 P. M.	16,000	5,100	60	1,000	2,450	620	1,390	160	1,500	4,550	3,500	1,500	1,640
December	15	8:30 P. M.	10,000	5,217	75	500	2,750	680	1,300	130	1,500	4,250	750	1,600	1,560
December	15	9:00 P. M.	10,000	4,838	75	1,000	2,650	690	1,300	70	1,360	4,100	750	1,600	1,500
December	15	9:30 P. M.	10,000	4,160	60	500	2,400	650	1,360	70	1,290	3,700	750	1,600	1,400
December	15	10:00 P. M.	11,000	3,805	75	500	2,350	600	1,200	60	1,240	3,500	750	1,600	1,340
1938															
March	22	9:00 A. M.	10,000	4,231	90	500	2,350	1,020	1,540	160	1,930	3,850	2,850	1,025	1,330
March	22	9:30 A. M.	11,000	4,464	105	500	2,600	1,150	1,540	140	1,850	3,900	2,850	1,025	1,330
March	22	10:00 A. M.	13,000	4,600	105	500	2,750	1,040	1,540	110	2,050	3,950	2,850	1,025	1,420
May	20	10:30 A. M.	16,000	4,325	120	1,000	2,200	1,160	1,340	120	1,720	3,450	3,000	1,200	1,340
May	20	11:00 A. M.	14,000	4,425	135	500	2,200	970	1,300	120	1,750	3,600	3,000	1,250	1,270
May	20	11:30 A. M.	13,000	4,575	105	1,000	2,350	1,000	1,250	120	1,850	3,550	3,000	1,200	1,250
May	23	10:30 A. M.	16,000	4,700	60	500	2,500	1,020	1,480	120	1,790	3,800	3,125	1,400	1,620
May	23	11:00 A. M.	12,000	4,700	60	1,000	2,400	1,080	1,440	120	1,740	3,750	3,125	1,400	1,680
May	23	11:30 A. M.	15,000	4,800	60	1,500	2,500	1,100	1,530	120	1,600	3,750	3,125	1,350	1,640
July	25	3:00 P. M.	14,000	5,275	120	500	2,000	1,150	1,440	120	2,200	4,600	900	1,500	1,340
July	25	3:30 P. M.	12,000	5,000	105	500	2,200	1,070	1,440	90	2,060	4,700	600	1,400	1,320
July	25	4:00 P. M.	11,000	5,115	75	1,000	1,950	920	1,340	80	1,920	4,300	600	1,300	1,400

COMMISSION'S EXHIBIT NO. 14

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

Power factors at the substations of the Central Division at time of ordinary heavy load condition.

Mechanic St. Substation	—	4 kv. load	— 71%
Mechanic St. Substation	—	General cable	— 80%
Carteret Substation	—	local load	— 83%
Metuchen Substation	—	4 kv. load	— 85%
Keasby Substation	—	local load	— 63%
Tremley Substation	—	local load	— 78%
Linden Substation	—	local load	— 90%
Rahway Substation	—	local load	— 85%

COMMISSION'S EXHIBIT NO. 15

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

Line impedances in the Central Division

Line Designation			*Length*		*Impedance*
From	*To*	*Line No.*	*Miles*		*Ohms*
Mechanics St.	Carteret	Q 199	5.65	3.80	∠59.6°
Mechanics St.	Keasbey	B 184	1.74	1.12	∠68.6°
Mechanics St.	Metuchen	A 183	5.51	3.81	∠68.1°
Mechanics St.	Metuchen	N 196	5.19	4.39	∠60.9°
Carteret	Tremley	P 198	3.32	2.17	∠68.9°
Tremley	Linden	N 222	1.98	1.48	∠71.4°
Linden	Rahway	R 200	2.25	1.39	∠68.4°
Rahway	Metuchen	J 244	9.76	6.64	∠69.9°
Metuchen	Carteret	V 230	8.36	5.80	∠70.3°
Metuchen	Keasbey	M 195	3.58	2.69	∠56.4°

COMMISSION'S COUNSEL EXHIBIT NO. 16A

(Revised table—supersedes Exhibit 16)

SUMMARY TABLE SHOWING DISPOSITION OF POWER RECEIVED AT THE MECHANIC STREET SUBSTATION FROM THE JERSEY CENTRAL POWER AND LIGHT COMPANY

(All Data in Kilowatts)

Date	Hour	Power Supplied By J. C. P. & L. Co. (to Mechanic St.)	Load at Mechanic St. (Inc. S. I. E. Corp.) (1)	Remainder (Col. 3 minus Col. 4)	Disposition of Remainder (Calculated)						Percent of Total Power Supplied to Mechanic St. By-		Total Network Requirements
					To (or from) Metuchen			To Keasby	To Carteret				
					Line A-183	Line H-196	Total	Line B-184	Line Q-199	Total	J. C. P. & L. Co.	Metuchen	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Jan. 26, 1937	8:30 P. M.	19,000	6,340	12,660	(Not calculated since the supply from J. C. P. & L.						100.		17,000
Jan. 26, 1937	9:00 P. M.	19,000	6,338	12,662	(Co. was in excess of the total power requirements						100.		16,629
Jan. 26, 1937	9:30 P. M.	21,000	6,023	14,977	(of the network. At these instants some of the power						100.		15,997
Jan. 26, 1937	10:00 P. M.	20,000	7,665	12,335	(delivered to Mechanic Street by the J. C. P. & L. Co.)						100.		16,987
					(was transmitted to loads outside the network								
Aug. 5, 1937	7:00 A. M.	14,000	5,121	8,879	(over these lines.						100.		13,443
Aug. 5, 1937	7:30 A. M.	11,000	4,658	6,342	735	638	1,373	1,260	3,710	6,343	100.		14,236
Aug. 5, 1937	8:00 A. M.	10,000	5,130	4,870	86	75	161	749	3,960	4,870	100.		16,483
Nov. 16, 1937	7:00 P. M.	16,000	5,429	10,571	1,514	1,314	2,828	2,182	5,562	10,572	100.		20,160
Dec. 15, 1937	8:30 P. M.	10,000	6,615	3,385	* 380	* 330	* 710	288	3,805	3,383	93.37	6.63	18,795
Dec. 15, 1937	9:00 P. M.	10,000	6,656	3,344	* 345	* 300	* 645	260	3,729	3,344	93.94	6.06	18,456
Dec. 15, 1937	9:30 P. M.	10,000	5,813	4,187	* 28	* 24	* 52	546	3,693	4,187	99.48	.52	16,956
Dec. 15, 1937	10:00 P. M.	11,000	5,531	5,469	414	359	773	965	3,731	5,469	100.		16,160
March 22, 1938	9:00 A. M.	10,000	5,621	4,379	* 296	* 257	* 553	562	4,372	4,381	94.76	5.24	19,277
March 22, 1938	9:30 A. M.	11,000	6,033	4,967	* 163	* 141	* 304	660	4,610	4,966	97.31	2.69	19,998
March 22, 1938	10:00 A. M.	13,000	5,891	7,109	446	387	833	1,358	4,918	7,109	100.		20,086
May 20, 1938	10:30 A. M.	16,000	6,290	9,710	1,346	1,168	2,514	2,111	5,083	9,708	100.		19,528
May 20, 1938	11:00 A. M.	14,000	6,003	7,997	854	741	1,595	1,633	4,770	7,998	100.		19,137
May 20, 1938	11:30 A. M.	13,000	7,081	5,919	215	187	402	1,038	4,478	5,918	100.		20,285
May 23, 1938	10:30 A. M.	16,000	4,042	11,958	1,913	1,660	3,573	2,709	5,675	11,957	100.		18,377
May 23, 1938	11:00 A. M.	12,000	4,542	7,458	595	517	1,112	1,369	4,978	7,459	100.		18,791
May 23, 1938	11:30 A. M.	15,000	5,112	9,888	1,312	1,138	2,450	2,024	5,414	9,888	100.		19,393
July 25, 1938	3:00 P. M.	14,000	6,455	7,545	735	638	1,373	1,714	4,457	7,544	100.		19,240
July 25, 1938	3:30 P. M.	12,000	5,415	6,585	490	425	915	1,406	4,262	6,583	100.		17,888
July 25, 1938	4:00 P. M.	11,000	5,323	5,677	348	302	650	1,202	3,826	5,678	100.		16,891

(1) General Cable Load Increased by 5% for Losses.

* Indicates Flow from Metuchen to Mechanic Street.

COMMISSION'S EXHIBIT NO. 17

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
Mechanic St. Substation
Instrument Readings Recorded on Substation Log Sheets

Year Month Day	Hour	J.C.P. & L. Co. OUT Kws.	S.I.Ed. Corp. IN Kws.	Mechanic St. Sub. Local Load Kva.	Mechanic St. Sub. General Cable Load Amps.[1]	Carteret Substation Line Q 199 Amps.[2]	Keasbey Substation Line B 184 Amps.[2]	Metuchen Sub. Line A 183 Amps.[2]	Metuchen Sub. Line N 196 Amps.[2]
1938									
4-3	8:30 P. M.	1,000	1,500	3,505	60	180	120	150	120
4-14	7:00 A. M.	1,000	1,000	2,057	60	90	0	0	330
4-15	3:30 P. M.	1,000	1,500	3,962	60	210	120	150	120
4-21	6:30 P. M.	1,000	2,000	3,607	105	150	180	225	195
4-25	7:30 A. M.	1,000	2,000	2,344	60	180	120	150	150
4-28	6:00 P. M.	1,000	2,000	2,847	60	150	150	210	180
5-4	12:00 N.	1,000	2,500	2,717	60	180	90	150	150
5-8	6:00 A. M.	1,000	2,000	1,739	60	120	60	150	120
7-2	1:00 P. M.	1,000	500	3,075	60	150	90	150	120
7-3	2:00 A. M.	1,000	500	2,413	60	150	75	150	90
7-5	6:30 A. M.	1,000	1,500	1,657	60	120	90	150	150
7-21	7:30 A. M.	1,000	1,000	2,520	60	150	150	150	150
7-25	8:00 P. M.	1,000	2,000	3,200	75	150	120	150	120
7-28	8:00 P. M.	1,000	1,500	3,300	75	150	90	150	120

Year Month Day	Hour	J. C. P. & L. Co. OUT Kws.	S. I. Ed. Corp. IN Kws.	Mechanic St. Sub. Local Load Kva.	Mechanic St. Sub. General Cable Load Amps.[1]	Carteret Substation Line Q 199 Amps.[2]	Keasbey Substation Line B 184 Amps.[2]	Metuchen Sub. Line A 183 Amps.[2]	Metuchen Sub. Line N 196 Amps.[2]
7-30	1:30 P. M.	1,000	1,500	3,225	60	150	60	150	120
8-2	2:00 A. M.	1,000	1,500	2,350	60	120	120	150	150
8-12	8:00 A. M.	1,000	2,000	3,918	60	210	60	120	120

[1] Sum of 6 ammeter readings: Three phases and two circuits.
[2] Sum of 3 ammeter readings.

COMMISSION'S EXHIBIT NO. 17A

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
Mechanic St. Substation
Instrument Readings Recorded on Substation Log Sheets

Year Month Day	Hour	J.C.P. & L. Co. OUT Kws.	S.I.Ed. Corp. IN Kws.	Mechanic St. Sub. Local Load Kva.	Mechanic St. Sub. General Cable Load Amps.[1]	Carteret Substation Line Q 199 Amps.[2]	Kearsby Substation Line B 184 Amps.[2]	Metuchen Sub. Line A 183 Amps.[2]	Metuchen Sub. Line N 196 Amps.[2]
1937									
1-13	3:00 A. M.	1,000	1,000	1,778	60	90	60	90	60
1-22	3:00 A. M.	1,000	500	1,754	105	90	60	120	90
2-12	7:00 A. M.	2,000	2,000	2,458	75	90	60	90	60
2-14	5:30 P. M.	1,000	2,000	2,296	60	90	60	90	60
2-22	3:30 P. M.	1,000	1,000	3,225	60	120	60	90	60
3-14	1:30 P. M.	1,000	2,000	2,176	60	90	90	60	60
3-14	2:00 P. M.	1,000	1,500	2,304	60	120	60	90	60
3-14	2:30 P. M.	1,000	500	2,355	60	120	60	90	60
3-28	11:30 A. M.	1,000	1,000	2,057	60	90	60	90	45
3-29	6:30 A. M.	1,000	2,000	1,792	60	120	60	90	60
4-11	6:30 A. M.	1,000	1,000	1,778	60	120	120	150	90
4-13	5:00 A. M.	1,000	1,000	1,675	105	150	90	120	90
4-14	7:00 A. M.	1,000	2,000	1,800	75	150	90	150	120
5-2	3:00 A. M.	1,000	500	2,225	60	150	90	150	120

Commission's Exhibit No. 17A

Year Month Day	Hour	J.C.P. & L. Co. OUT Kws.	S.I.Ed. Corp. IN Kws.	Mechanic St. Sub. Local Load Kva.	Mechanic St. Sub. General Cable Load Amps.[1]	Carteret Substation Line Q 199 Amps.[2]	Keasby Substation Line B 184 Amps.[2]	Metuchen Sub. Line A 183 Amps.[2]	Metuchen Sub. Line N 196 Amps.[2]
5-2	4:00 A. M.	1,000	500	2,150	60	150	75	120	75
5-3	6:00 P. M.	1,000	1,500	3,200	120	150	150	180	165
5-18	2:00 A. M.	1,000	1,000	2,475	75	150	90	120	120
5-21	7:30 A. M.	1,000	2,000	3,174	60	210	60	120	90
5-27	5:00 A. M.	1,000	1,000	2,000	60	120	90	150	120
5-27	6:30 A. M.	1,000	1,000	2,150	75	120	120	150	120
5-31	6:30 A. M.	2,000	2,000	1,956	60	150	90	150	90
6-20	6:30 P. M.	1,000	1,000	1,657	60	90	75	150	90
6-20	8:00 P. M.	1,000	1,000	2,870	60	120	90	165	150
6-24	8:30 P. M.	1,000	1,000	3,658	120	120	150	240	210
6-26	8:00 A. M.	1,000	2,000	3,226	75	90	150	240	210
6-27	9:00 A. M.	1,000	500	2,219	60	60	150	150	150
6-27	9:30 A. M.	1,000	1,000	2,489	60	60	150	150	150

[1] Sum of 6 ammeter readings: Three phases and two circuits.

[2] Sum of 3 ammeter readings.

COMMISSION'S EXHIBIT NO. 18

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
Mechanic St. Substation
Substation Load and Supply

Month	Day	Hour	Received from Staten Island Edison Corp. Kws.	Energy Deliveries: Delivered to J. C. P. & L. Co. Kws.	Local Load Kws.	General Cable Load Kws.	Total Kws.	Excess Load Over Supply at Mechanics St. Kws.
1938								
April	3	8:30 P. M.	1,500	1,000	2,490	730	4,220	2,720
April	14	7:00 A. M.	1,000	1,000	1,460	730	3,190	2,190
April	15	3:30 P. M.	1,500	1,000	2,810	730	4,540	3,040
April	21	6:30 P. M.	2,000	1,000	2,560	1,280	4,840	2,840
April	25	7:30 A. M.	2,000	1,000	1,660	730	3,390	1,390
April	28	6:00 P. M.	2,000	1,000	2,020	730	3,750	1,750
May	4	12:00 N.	2,500	1,000	1,930	730	3,660	1,160
May	8	6:00 A. M.	2,000	1,000	1,230	730	2,960	960
July	2	1:00 P. M.	500	1,000	2,180	730	3,910	3,410
July	3	2:00 A. M.	500	1,000	1,710	730	3,440	2,940
July	5	6:30 A. M.	1,500	1,000	1,180	730	2,910	1,410
July	21	7:30 A. M.	1,000	1,000	1,790	730	3,520	2,520
July	25	8:00 P. M.	2,000	1,000	2,270	920	4,190	2,190
July	28	8:00 P. M.	1,500	1,000	2,340	920	4,260	2,760

Commission's Exhibit No. 18

Month	Day	Hour	Received from Staten Island Edison Corp. Kws.	Energy Deliveries: Delivered to J. C. P. & L. Co. Kws.	Local Load Kws.	General Cable Load Kws.	Total Kws.	Excess Load Over Supply at Mechanics St. Kws.
July	30	1:30 P. M.	1,500	1,000	2,290	730	4,020	2,520
August	2	2:00 A. M.	1,500	1,000	1,670	730	3,400	1,900
August	12	8:00 A. M.	2,000	1,000	2,780	730	4,510	2,510

COMMISSION'S EXHIBIT NO. 18A

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
Mechanic Street Substation
Substation Load and Supply

Year Month Day	Hour	Received from Staten Island Edison Corp. Kws.	Energy Deliveries: Delivered to J. C. P. & L. Co. Kws.	Local Load Kws.	General Cable Load Kws.	Total Kws.	Excess Load over Supply at Mechanic St. Kws.
1937							
1-13	3:00 A. M.	1,000	1,000	1,262	730	2,992	1,992
1-22	3:00 A. M.	500	1,000	1,245	1,280	3,525	3,025
2-12	7:00 A. M.	2,000	2,000	1,745	920	4,665	2,665
2-14	5:30 P. M.	2,000	1,000	1,630	730	3,360	1,360
2-22	3:30 P. M.	1,000	1,000	2,290	730	4,020	3,020
3-14	1:30 P. M.	2,000	1,000	1,545	730	3,275	1,275
3-14	2:00 P. M.	1,500	1,000	1,636	730	3,366	1,866

Year Month Day	Hour	Received from Staten Island Edison Corp. Kws.	Energy Deliveries: Delivered to J. C. P. & L. Co. Kws.	Local Load Kws.	General Cable Load Kws.	Total Kws.	Excess Load over Supply at Mechanic St. Kws.
3-14	2:30 P. M.	500	1,000	1,672	730	3,402	2,902
3-28	11:30 A. M.	1,000	1,000	1,460	730	3,190	2,190
3-29	6:30 A. M.	2,000	1,000	1,272	730	3,002	1,002
4-11	6:30 A. M.	1,000	1,000	1,262	730	2,992	1,992
4-13	5:00 A. M.	1,000	1,000	1,189	1,280	3,469	2,469
4-14	7:00 A. M.	2,000	1,000	1,278	920	3,198	1,198
5-2	3:00 A. M.	500	1,000	1,580	730	3,310	2,810
5-2	4:00 A. M.	500	1,000	1,527	730	3,257	2,757
5-3	6:00 P. M.	1,500	1,000	2,272	1,470	4,742	3,242
5-18	2:00 A. M.	1,000	1,000	1,757	920	3,677	2,677
5-21	7:30 A. M.	2,000	1,000	2,253	730	3,983	1,983
5-27	5:00 A. M.	1,000	1,000	1,420	730	3,150	2,150
5-27	6:30 A. M.	1,000	1,000	1,527	920	3,447	2,447
5-31	6:30 A. M.	2,000	2,000	1,389	730	4,119	2,119
6-20	6:30 P. M.	1,000	1,000	1,894	730	3,624	2,624
6-20	8:00 P. M.	1,000	1,000	2,038	730	3,768	2,768
6-24	8:30 P. M.	1,000	1,000	2,597	1,470	5,067	4,067
6-26	8:00 A. M.	2,000	1,000	2,290	920	4,210	2,210
6-27	9:00 A. M.	500	1,000	1,575	730	3,305	2,805
6-27	9:30 A. M.	1,000	1,000	1,767	730	3,497	2,497

COMMISSION'S EXHIBIT NO. 19

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

80 Park Place,
Newark, New Jersey,
April 28, 1938.

Mr. R. H. Barclay, Regional Director,
Federal Power Commission,
Federal Building,
641 Washington Street,
New York, N. Y.

Dear Sir:

In accordance with your request of Mr. J. T. Barron, Vice President in Charge of Electric Operation, there are enclosed tabulations showing interchange between Staten Island Edison Corporation and the Mechanic Street substation of Public Service Electric and Gas Company, during the year 1937 and the first three months of 1938.

No current generated at the Perth Amboy generating station during the period covering the year 1937 and the three months in 1938 was transmitted to the Mechanic Street substation.

Yours very truly,
W. J. Reynolds,
(Wm. J. Reynolds)
Assistant Comptroller.

(Stamped in upper right-hand corner):
Federal Power Commission
Received
Apr. 30, 1938
(Stamped in upper right-hand corner):
Federal Power Commission
Received
Apr. 29, 1938
New York—N. Y.

Interchange between Staten Island Edison Corporation and Public Service Electric and Gas Company
Kilowatt Hours

	January, 1937		February, 1937		March, 1937	
Date	S. I. E. to P. S.	P. S. to S. I. E.	S. I. E. to P. S.	P. S. to S. I. E.	S. I. E. to P. S.	P. S. to S. I. E.
1	12,000	5,700	13,800	10,500	9,800	8,000
2	6,100	9,500	5,100	24,300	8,500	10,300
3	5,900	8,600	8,200	10,900	12,100	7,600
4	11,200	5,700	12,600	8,100	9,500	9,500
5	7,500	9,800	11,500	9,400	8,700	9,300
6	7,300	10,200	17,800	9,500	11,600	5,000
7	9,100	9,400	13,000	10,800	9,300	5,000
8	7,300	8,600	7,800	15,800	9,500	9,000
9	4,800	12,800	12,200	10,500	9,600	9,700
10	7,800	10,100	8,800	10,100	11,300	8,300
11	9,100	8,000	10,800	9,900	6,500	12,100
12	6,500	12,800	17,100	11,900	13,600	6,800
13	10,300	10,800	7,700	8,100	7,300	10,200
14	8,100	11,300	12,600	12,600	7,400	9,700
15	6,200	14,100	9,300	8,700	6,000	14,000
16	8,100	8,900	5,400	13,600	8,700	8,600
17	7,800	6,800	18,200	5,300	8,800	7,000
18	8,400	7,500	6,800	12,500	9,200	7,900
19	8,000	7,800	8,600	8,200	9,200	9,100
20	6,200	8,500	9,500	5,800	6,800	10,300
21	7,800	8,700	7,100	7,500	7,600	6,500
22	8,900	7,300	9,300	9,600	6,300	9,000
23	5,100	8,500	8,500	12,600	7,500	9,100
24	8,600	5,400	8,100	10,200	7,500	9,400
25	12,500	5,400	7,600	9,600	9,500	8,400
26	7,500	10,200	8,700	9,500	9,800	8,500
27	8,900	7,100	11,100	8,600	9,900	8,900
28	8,900	7,700	10,500	4,700	9,900	4,600
29	10,300	7,500	—	—	9,100	7,500
30	10,000	6,400	—	—	7,900	7,900
31	7,200	6,700	—	—	10,100	7,400
Total	253,400	267,800	287,700	288,800	278,500	264,600

Date	April, 1937 S.I.E. to P.S.	April, 1937 P.S. to S.I.E.	May, 1937 S.I.E. to P.S.	May, 1937 P.S. to S.I.E.	June, 1937 S.I.E. to P.S.	June, 1937 P.S. to S.I.E.
1	9,700	9,300	8,200	7,300	7,000	10,000
2	9,700	7,900	7,200	4,600	6,000	20,000
3	6,200	10,000	7,400	8,100	6,000	10,000
4	8,000	5,900	6,100	7,200	9,000	10,000
5	5,800	12,000	0	0	6,000	10,000
6	8,900	10,600	0	0	7,000	7,000
7	12,100	8,300	0	0	8,000	11,000
8	7,400	10,400	0	0	9,000	10,000
9	6,700	10,200	5,400	4,800	9,000	10,000
10	6,700	9,900	10,000	8,000	10,000	7,000
11	11,300	5,800	9,000	11,000	12,000	6,000
12	8,900	8,700	12,000	6,000	9,000	5,000
13	6,600	9,200	6,000	13,000	6,000	9,000
14	7,800	8,900	9,000	9,000	8,000	8,000
15	6,600	7,200	9,000	8,000	12,000	7,000
16	8,200	9,100	9,000	5,000	9,000	8,000
17	9,600	8,200	10,000	7,000	8,000	8,000
18	6,400	6,600	9,000	8,000	9,000	7,000
19	9,600	8,200	8,000	10,000	7,000	8,000
20	7,600	13,000	11,000	8,000	8,000	9,000
21	7,100	11,600	9,000	7,000	9,000	7,000
22	8,800	12,600	6,000	10,000	7,000	10,000
23	9,900	9,700	7,000	8,000	10,000	7,000
24	9,800	10,400	10,000	8,000	7,000	11,000
25	6,900	4,600	10,000	7,000	8,000	8,000
26	8,200	7,100	9,000	9,000	9,000	8,000
27	7,400	7,800	8,000	9,000	6,000	7,000
28	9,300	7,200	9,000	10,000	9,000	8,000
29	7,000	12,300	8,000	8,000	10,000	8,000
30	9,100	8,500	7,000	8,000	8,000	11,000
31	—	—	8,000	9,000	—	—
Total	247,300	271,200	227,300	218,000	248,000	265,000

DCL:HMW 4-28-38

Interchange between Staten Island Edison Corporation and Public Service Electric and Gas Company
Kilowatt Hours

	July, 1937		*August, 1937*		*September, 1937*	
Date	*S.I.E. to P.S.*	*P.S. to S.I.E.*	*S.I.E. to P.S.*	*P.S. to S.I.E.*	*S.I.E. to P.S.*	*P.S. to S.I.E.*
1	9,000	8,000	8,000	8,000	8,000	9,000
2	9,000	9,000	9,000	9,000	9,000	8,000
3	8,000	9,000	9,000	9,000	9,000	10,000
4	8,000	7,000	9,000	9,000	6,000	12,000
5	8,000	8,000	8,000	9,000	8,000	9,000
6	8,000	8,000	9,000	9,000	6,000	7,000
7	7,000	11,000	7,000	7,000	10,000	8,000
8	8,000	9,000	9,000	8,000	11,000	8,000
9	9,000	11,000	6,000	10,000	8,000	10,000
10	9,000	8,000	7,000	9,000	9,000	8,000
11	6,000	11,000	7,000	8,000	10,000	10,000
12	5,000	12,000	11,000	7,000	11,000	4,000
13	6,000	15,000	10,000	8,000	9,000	10,000
14	11,000	7,000	10,000	6,000	11,000	9,000
15	12,000	6,000	7,000	12,000	10,000	8,000
16	9,000	11,000	14,000	8,000	6,000	10,000
17	7,000	9,000	8,000	9,000	8,000	12,000
18	10,000	6,000	10,000	10,000	8,000	7,000
19	10,000	8,000	7,000	8,000	7,000	8,000
20	11,000	8,000	7,000	12,000	8,000	7,000
21	8,000	8,000	7,000	10,000	12,000	8,000
22	9,000	9,000	8,000	7,000	12,000	6,000
23	9,000	7,000	13,000	7,000	8,000	9,000
24	10,000	5,000	9,000	9,000	10,000	8,000
25	8,000	8,000	8,000	10,000	8,000	8,000
26	6,000	14,000	9,000	8,000	6,000	8,000
27	13,000	9,000	9,000	9,000	6,000	10,000
28	11,000	8,000	11,000	8,000	7,000	10,000
29	9,000	8,000	11,000	5,000	12,000	8,000
30	11,000	7,000	6,000	13,000	10,000	8,000
31	7,000	9,000	7,000	11,000	—	—
Total	271,000	273,000	270,000	272,000	263,000	257,000

Date	October, 1937 S.I.E. to P.S.	October, 1937 P.S. to S.I.E.	November, 1937 S.I.E. to P.S.	November, 1937 P.S. to S.I.E.	December, 1937 S.I.E. to P.S.	December, 1937 P.S. to S.I.E.
1	5,000	5,000	9,000	9,000	8,000	9,000
2	6,000	9,000	9,000	7,000	6,000	12,000
3	7,000	6,000	12,000	7,000	11,000	7,000
4	8,000	9,000	11,000	7,000	9,000	7,000
5	8,000	9,000	9,000	8,000	7,000	5,000
6	9,000	8,000	7,000	7,000	8,000	10,000
7	8,000	8,000	7,000	6,000	9,000	8,000
8	9,000	8,000	8,000	8,000	10,000	6,000
9	6,000	7,000	10,000	9,000	8,000	8,000
10	6,000	7,000	11,000	9,000	10,000	6,000
11	11,000	8,000	7,000	10,000	6,000	9,000
12	9,000	7,000	5,000	11,000	8,000	4,000
13	10,000	8,000	6,000	9,000	11,000	7,000
14	10,000	6,000	6,000	7,000	10,000	7,000
15	12,000	6,000	7,000	13,000	7,000	8,000
16	10,000	5,000	8,000	9,000	8,000	8,000
17	8,000	7,000	8,000	11,000	11,000	7,000
18	10,000	8,000	7,000	9,000	8,000	8,000
19	5,000	14,000	7,000	9,000	8,000	7,000
20	8,000	9,000	7,000	8,000	14,000	7,000
21	12,000	5,000	5,000	8,000	7,000	9,000
22	8,000	10,000	9,000	8,000	10,000	7,000
23	7,000	9,000	11,000	9,000	8,000	9,000
24	6,000	5,000	9,000	8,000	9,000	8,000
25	8,000	10,000	7,000	5,000	6,000	5,000
26	9,000	8,000	11,000	7,000	7,000	5,000
27	9,000	8,000	7,000	7,000	10,000	9,000
28	8,000	8,000	6,000	1,000	9,000	10,000
29	10,000	6,000	8,000	15,000	8,000	9,000
30	9,000	8,000	12,000	6,000	11,000	5,000
31	4,000	4,000	—	—	10,000	8,000
Total	255,000	235,000	246,000	247,000	272,000	234,000

DCL:HMW 4-28-38

Interchange between Staten Island Edison Corporation and Public Service Electric and Gas Company
Kilowatt Hours

	January, 1938		*February, 1938*		*March, 1938*	
	S.I.E. to P.S.	*P.S. to S.I.E.*	*S.I.E. to P.S.*	*P.S. to S.I.E.*	*S.I.E. to P.S.*	*P.S. to S.I.E.*
Date						
1	4,000	7,000	9,000	8,000	8,000	4,000
2	7,000	7,000	9,000	7,000	15,000	5,000
3	8,000	10,000	7,000	8,000	10,000	6,000
4	8,000	9,000	7,000	8,000	12,000	7,000
5	11,000	7,000	7,000	7,000	4,000	14,000
6	8,000	9,000	7,000	9,000	8,000	11,000
7	8,000	8,000	9,000	8,000	12,000	4,000
8	8,000	6,000	14,000	5,000	8,000	7,000
9	5,000	7,000	12,000	8,000	8,000	7,000
10	7,000	9,000	14,000	5,000	11,000	8,000
11	6,000	8,000	15,000	5,000	6,000	10,000
12	7,000	8,000	8,000	7,000	6,000	8,000
13	7,000	9,000	7,000	9,000	8,000	9,000
14	8,000	6,000	10,000	9,000	5,000	11,000
15	8,000	6,000	11,000	9,000	8,000	7,000
16	8,000	6,000	9,000	9,000	5,000	18,000
17	8,000	10,000	15,000	8,000	10,000	11,000
18	6,000	11,000	14,000	7,000	6,000	4,000
19	9,000	8,000	2,000	18,000	6,000	10,000
20	12,000	7,000	3,000	9,000	8,000	6,000
21	10,000	7,000	12,000	8,000	11,000	6,000
22	8,000	6,000	10,000	7,000	7,000	9,000
23	7,000	6,000	5,000	11,000	12,000	8,000
24	10,000	7,000	9,000	7,000	12,000	9,000
25	8,000	8,000	9,000	6,000	11,000	7,000
26	7,000	8,000	6,000	9,000	7,000	10,000
27	13,000	8,000	4,000	6,000	4,000	9,000
28	9,000	10,000	5,000	12,000	12,000	7,000
29	8,000	8,000	—	—	9,000	10,000
30	5,000	6,000	—	—	4,000	13,000
31	7,000	8,000	—	—	3,000	15,000
Total	245,000	240,000	249,000	229,000	256,000	270,000

DCL:HMW 4-28-38

COMMISSION'S EXHIBIT NO. 20

JERSEY CENTRAL POWER & LIGHT COMPANY
Jersey Central Building
Asbury Park

T. R. Crumley
President

April 27, 1938

(Stamped)
Federal Power Commission
Received
Apr. 28, 1938
New York, N. Y.

(Stamped)
Federal Power Commission
Received
Apr. 29, 1938

Mr. H. R. Barkley, Regional Director,
Federal Power Commission,
641 Washington Street,
New York City.

Dear Sir:

Complying with your request we are enclosing, herewith, a statement showing for each day from January 1, 1937 until April 23, 1938 the amount of energy sold to or purchased from Public Service Electric & Gas Company by Jersey Central Power & Light Company over the interconnection between the South Amboy plant of Jersey Central Power & Light Company and the Mechanic Street substation of Public Service Electric & Gas Company at Perth Amboy, New Jersey.

Very truly yours,
T. R. Crumley,
President.

TRC/sg
Enclosures.

Interchange of Power between Jersey Central Power & Light Company and Public Service Electric & Gas Company. At South Amboy, New Jersey.

Received from P. S. (Metered at Mechanic St. Sub. at Perth Amboy, Covering Uncontrolled Flow)

Delivered to P. S. (Metered at South Amboy Plant)

From January 1, 1937 to April 23, 1938

(Stamped)
Federal Power Commission
Received
Apr. 29, 1938

1937	KWH Received from P. S.	KWH Delivered to P. S.
January	38,800	5,306,000
February	33,300	4,172,000
March	39,200	4,383,000
April	16,800	5,493,000
May	20,600	5,708,000
June	16,300	4,861,000
July	23,300	4,277,000
August	16,100	4,768,000
September	16,700	5,324,000
October	20,300	4,529,000
November	36,800	2,892,000
December	37,400	3,708,000
Total 1937	315,600	55,421,000
1938		
January	30,700	3,718,000
February	25,800	2,961,000
March	30,900	3,461,000
	87,400	10,140,000
	403,000	65,561,000

1937		KWH Received from P. S.	KWH Delivered to P. S.
January	1	2,000	83,000
	2	2,300	103,000
	3	1,100	82,000
	4	0	192,000
	5	0	185,000
	6	800	187,000
	7	2,000	159,000
	8	700	213,000
	9	2,000	144,000
	10	2,500	89,000
	11	2,000	164,000
	12	600	179,000
	13	1,900	182,000
	14	800	188,000
	15	1,300	193,000
	16	1,400	150,000
	17	2,300	82,000
	18	1,100	166,000
	19	300	167,000
	20	400	190,000
	21	100	208,000
	22	1,700	189,000
	23	900	205,000
	24	2,900	102,000
	25	800	205,000
	26	600	256,000
	27	600	287,000
	28	2,700	328,000
	29	0	188,000
	30	600	128,000
	31	2,400	112,000
Total January 1937		38,800	5,306,000

1937		KWH Received from P. S.	KWH Delivered to P. S.
February	1	2,100	172,000
	2	1,100	146,000
	3	2,000	167,000
	4	300	175,000
	5	800	163,000
	6	1,500	118,000
	7	2,400	67,000
	8	2,200	150,000
	9	500	176,000
	10	600	178,000
	11	100	178,000
	12	600	133,000
	13	300	136,000
	14	2,200	70,000
	15	1,100	165,000
	16	500	157,000
	17	1,500	176,000
	18	1,100	193,000
	19	1,100	189,000
	20	1,500	131,000
	21	2,900	82,000
	22	2,900	79,000
	23	1,200	175,000
	24	0	194,000
	25	500	224,000
	26	200	178,000
	27	900	134,000
	28	1,200	66,000
Total February 1937		33,300	4,172,000

KWH RECEIVED FROM AND DELIVERED TO PUBLIC SERVICE ELECTRIC AND GAS COMPANY

1937	KWH Received from P. S.	KWH Delivered to P. S.
March 1	1,600	158,000
2	900	164,000
3	1,500	143,000
4	900	131,000
5	900	155,000
6	1,000	122,000
7	1,600	86,000
8	1,300	153,000
9	1,000	166,000
10	500	176,000
11	700	167,000
12	1,000	179,000
13	1,600	115,000
14	3,200	88,000
15	0	174,000
16	900	161,000
17	0	158,000
18	800	155,000
19	1,000	174,000
20	1,000	185,000
21	2,800	56,000
22	2,600	170,000
23	400	183,000
24	700	155,000
25	1,200	144,000
26	1,800	93,000
27	2,300	76,000
28	3,500	60,000
29	1,300	119,000
30	800	146,000
31	400	171,000
Total March 1937	39,200	4,383,000

1937		KWH Received from P. S.	KWH Delivered to P. S.
April	1	0	249,000
	2	0	228,000
	3	600	204,000
	4	3,000	95,000
	5	1,900	169,000
	6	0	230,000
	7	100	186,000
	8	1,100	190,000
	9	500	174,000
	10	300	194,000
	11	1,500	83,000
	12	300	170,000
	13	1,500	184,000
	14	400	201,000
	15	100	207,000
	16	0	218,000
	17	100	195,000
	18	600	60,000
	19	0	82,000
	20	100	313,000
	21	400	158,000
	22	0	198,000
	23	0	207,000
	24	400	219,000
	25	1,800	97,000
	26	1,000	182,000
	27	1,100	181,000
	28	0	220,000
	29	0	210,000
	30	0	189,000
Total April 1937		16,800	5,493,000

1937		KWH Received from P. S.	KWH Delivered to P. S.
May	1	400	198,000
	2	2,700	70,000
	3	2,200	164,000
	4	0	239,000
	5	0	246,000
	6	0	247,000
	7	0	270,000
	8	800	210,000
	9	200	141,000
	10	0	202,000
	11	0	255,000
	12	400	224,000
	13	100	205,000
	14	0	213,000
	15	700	139,000
	16	2,300	77,000
	17	900	188,000
	18	100	197,000
	19	300	195,000
	20	100	200,000
	21	400	206,000
	22	300	201,000
	23	2,600	83,000
	24	900	181,000
	25	500	217,000
	26	200	186,000
	27	700	173,000
	28	0	190,000
	29	1,300	195,000
	30	1,700	89,000
	31	800	107,000
Total May 1937		20,600	5,708,000

1937		KWH Received from P. S.	KWH Delivered to P. S.
June	1	600	126,000
	2	0	181,000
	3	0	215,000
	4	0	239,000
	5	0	230,000
	6	0	219,000
	7	0	184,000
	8	0	219,000
	9	0	229,000
	10	0	221,000
	11	100	207,000
	12	0	247,000
	13	1,400	113,000
	14	300	194,000
	15	0	200,000
	16	0	215,000
	17	0	199,000
	18	400	197,000
	19	400	116,000
	20	1,700	68,000
	21	1,400	144,000
	22	800	118,000
	23	1,300	99,000
	24	1,200	103,000
	25	1,100	94,000
	26	2,000	65,000
	27	1,800	70,000
	28	900	100,000
	29	900	109,000
	30	0	140,000
Total June 1937		16,300	4,861,000

1937		KWH Received from P. S.	KWH Delivered to P. S.
July	1	800	140,000
	2	300	122,000
	3	2,000	74,000
	4	3,900	60,000
	5	1,400	70,000
	6	700	86,000
	7	900	130,000
	8	200	157,000
	9	700	169,000
	10	2,100	154,000
	11	1,000	126,000
	12	700	137,000
	13	0	190,000
	14	0	158,000
	15	600	135,000
	16	0	159,000
	17	600	138,000
	18	0	157,000
	19	300	96,000
	20	0	142,000
	21	300	153,000
	22	400	159,000
	23	100	167,000
	24	900	106,000
	25	3,000	62,000
	26	1,200	139,000
	27	800	146,000
	28	0	167,000
	29	0	207,000
	30	300	199,000
	31	100	172,000
Total July 1937		23,300	4,277,000

1937		KWH Received from P. S.	KWH Delivered to P. S.
Aug.	1	2,400	61,000
	2	1,300	135,000
	3	0	195,000
	4	200	181,000
	5	100	190,000
	6	0	191,000
	7	0	204,000
	8	500	171,000
	9	400	159,000
	10	0	206,000
	11	100	207,000
	12	0	209,000
	13	200	187,000
	14	1,300	83,000
	15	1,100	74,000
	16	1,000	125,000
	17	0	185,000
	18	0	195,000
	19	0	222,000
	20	0	193,000
	21	100	187,000
	22	600	122,000
	23	1,100	90,000
	24	400	128,000
	25	600	153,000
	26	100	146,000
	27	0	185,000
	28	1,700	64,000
	29	1,500	75,000
	30	900	114,000
	31	500	131,000
Total Aug. 1937		16,100	4,768,000

1937		KWH Received from P. S.	KWH Delivered to P. S.
Sept.	1	1,300	148,000
	2	500	148,000
	3	1,600	132,000
	4	1,400	91,000
	5	800	100,000
	6	500	88,000
	7	500	135,000
	8	200	162,000
	9	100	166,000
	10	0	121,000
	11	1,500	162,000
	12	100	151,000
	13	0	197,000
	14	100	228,000
	15	0	240,000
	16	0	232,000
	17	100	200,000
	18	100	221,000
	19	3,200	109,000
	20	1,900	187,000
	21	100	215,000
	22	0	242,000
	23	800	207,000
	24	0	229,000
	25	100	227,000
	26	500	174,000
	27	400	203,000
	28	200	200,000
	29	500	204,000
	30	200	205,000
Total Sept. 1937		16,700	5,324,000

1937		KWH Received from P. S.	KWH Delivered to P. S.
Oct.	1	200	215,000
	2	200	185,000
	3	700	195,000
	4	300	166,000
	5	800	157,000
	6	1,600	181,000
	7	300	181,000
	8	700	196,000
	9	200	91,000
	10	1,700	101,000
	11	200	150,000
	12	200	166,000
	13	100	166,000
	14	700	180,000
	15	600	197,000
	16	400	171,000
	17	800	102,000
	18	300	181,000
	19	600	154,000
	20	0	153,000
	21	200	172,000
	22	600	156,000
	23	1,100	79,000
	24	1,300	55,000
	25	1,000	113,000
	26	2,100	124,000
	27	400	139,000
	28	500	136,000
	29	1,200	118,000
	30	0	72,000
	31	1,300	77,000
Total Oct. 1937		20,300	4,529,000

1937		KWH Received from P. S.	KWH Delivered to P. S.
Nov.	1	1,100	110,000
	2	800	109,000
	3	900	140,000
	4	1,700	108,000
	5	1,100	114,000
	6	800	90,000
	7	1,500	65,000
	8	800	155,000
	9	700	129,000
	10	500	139,000
	11	1,700	82,000
	12	900	116,000
	13	1,100	104,000
	14	1,000	75,000
	15	1,100	113,000
	16	700	105,000
	17	300	106,000
	18	1,100	85,000
	19	1,600	88,000
	20	1,300	87,000
	21	1,600	60,000
	22	2,100	78,000
	23	2,300	71,000
	24	1,300	83,000
	25	700	60,000
	26	900	80,000
	27	1,000	109,000
	28	2,200	67,000
	29	1,800	84,000
	30	2,200	80,000
Total Nov. 1937		36,800	2,892,000

1937		KWH Received from P. S.	KWH Delivered to P. S.
Dec.	1	1,300	86,000
	2	1,800	122,000
	3	700	102,000
	4	2,200	61,000
	5	700	174,000
	6	700	120,000
	7	1,200	137,000
	8	1,100	111,000
	9	800	105,000
	10	500	144,000
	11	1,900	96,000
	12	2,700	74,000
	13	900	175,000
	14	1,200	188,000
	15	1,100	191,000
	16	600	193,000
	17	300	175,000
	18	600	152,000
	19	1,800	65,000
	20	1,300	123,000
	21	500	137,000
	22	900	129,000
	23	1,200	133,000
	24	1,100	88,000
	25	1,800	64,000
	26	1,600	62,000
	27	1,900	93,000
	28	1,300	115,000
	29	1,200	82,000
	30	1,200	102,000
	31	1,300	109,000
Total Dec. 1937		37,400	3,708,000

1938		KWH Received from P. S.	KWH Delivered to P. S.
Jan.	1	1,700	84,000
	2	2,100	66,000
	3	4,300	103,000
	4	500	141,000
	5	700	127,000
	6	800	126,000
	7	800	97,000
	8	1,400	76,000
	9	900	67,000
	10	600	123,000
	11	800	123,000
	12	1,000	123,000
	13	800	102,000
	14	600	93,000
	15	1,100	90,000
	16	3,400	70,000
	17	1,200	126,000
	18	1,300	160,000
	19	300	224,000
	20	900	187,000
	21	300	167,000
	22	1,500	172,000
	23	1,000	81,000
	24	300	145,000
	25	700	122,000
	26	500	136,000
	27	700	144,000
	28	900	162,000
	29	500	102,000
	30	900	60,000
	31	1,200	139,000
Total Jan. 1938		30,700	3,718,000

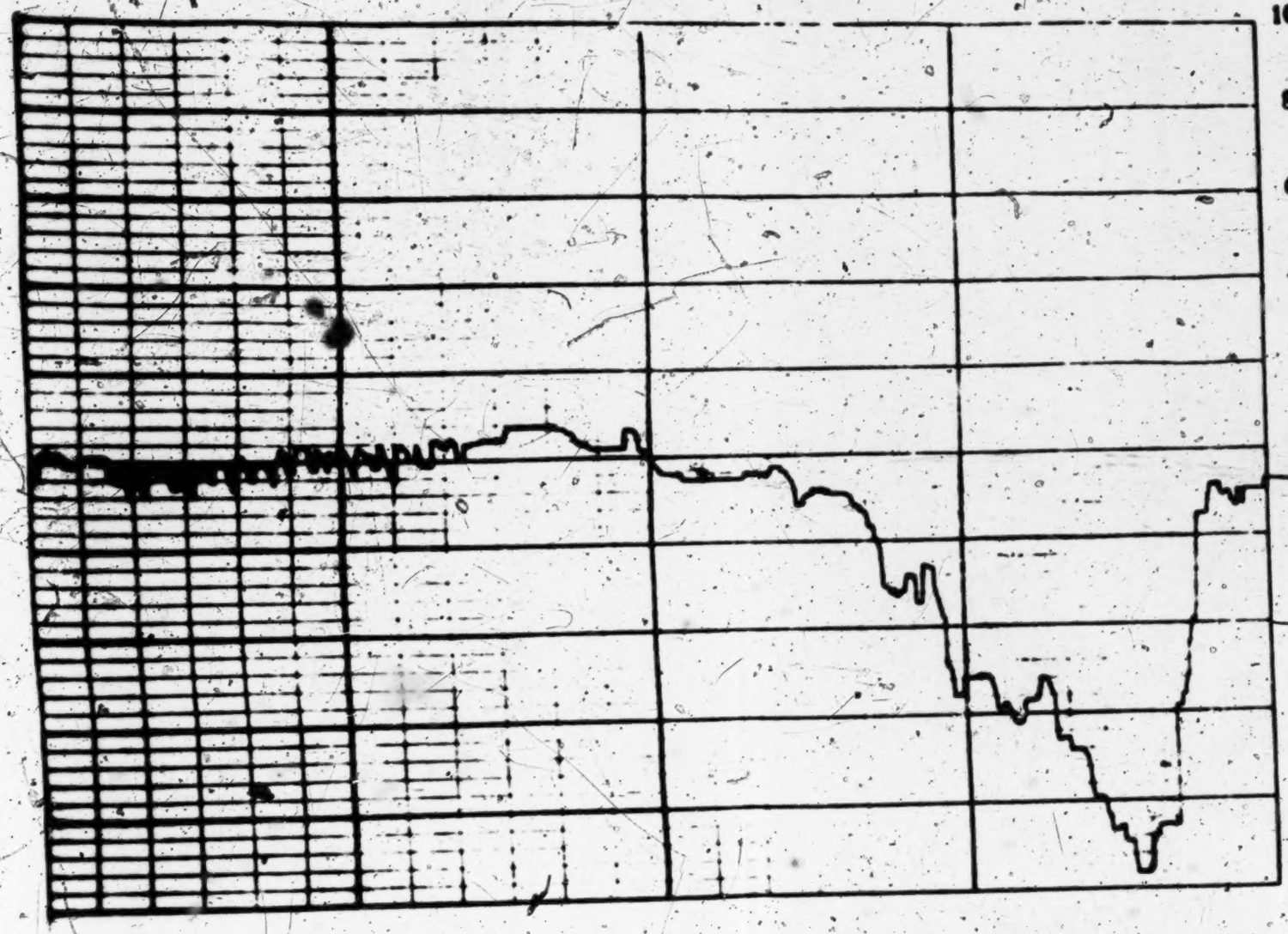
1938		KWH Received from P. S.	KWH Delivered to P. S.
Feb.	1	600	124,000
	2	800	113,000
	3	1,400	162,000
	4	900	111,000
	5	700	101,000
	6	700	75,000
	7	700	94,000
	8	700	124,000
	9	500	133,000
	10	2,000	96,000
	11	600	107,000
	12	1,300	80,000
	13	1,300	66,000
	14	800	80,000
	15	1,100	105,000
	16	600	125,000
	17	800	110,000
	18	300	124,000
	19	1,400	96,000
	20	1,200	58,000
	21	300	96,000
	22	1,200	89,000
	23	1,300	149,000
	24	1,000	129,000
	25	1,000	105,000
	26	0	138,000
	27	1,300	67,000
	28	1,300	104,000
Total Feb. 1938		25,800	2,961,000

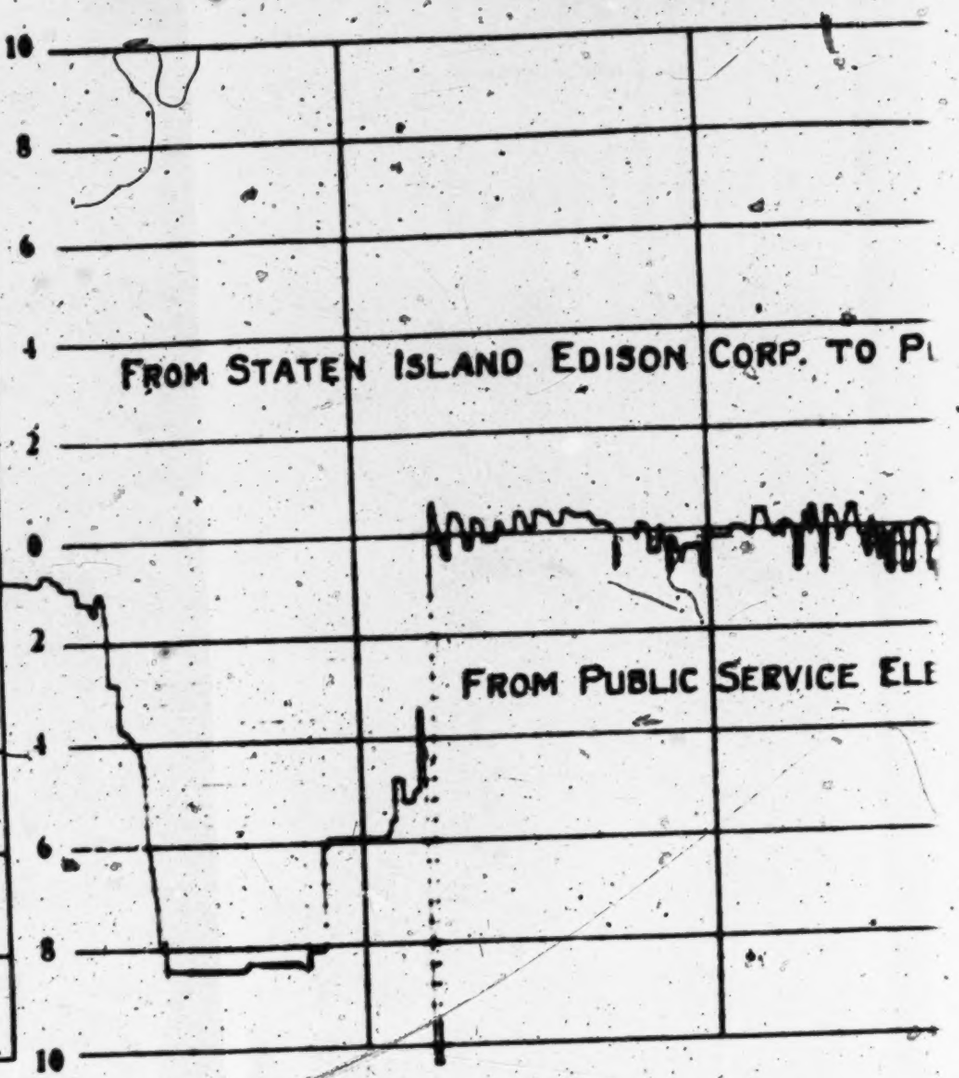
1938		KWH Received from P. S.	KWH Delivered to P. S.
March	1	300	154,000
	2	400	148,000
	3	400	136,000
	4	500	122,000
	5	1,400	96,000
	6	2,200	66,000
	7	700	136,000
	8	500	147,000
	9	600	125,000
	10	800	153,000
	11	700	113,000
	12	1,300	85,000
	13	1,500	58,000
	14	1,000	137,000
	15	800	168,000
	16	1,000	139,000
	17	400	154,000
	18	600	110,000
	19	800	84,000
	20	1,400	61,000
	21	800	124,000
	22	1,100	138,000
	23	200	149,000
	24	200	14,000
	25	1,100	87,000
	26	1,700	60,000
	27	2,900	48,000
	28	2,600	114,000
	29	1,000	89,000
	30	900	112,000
	31	1,100	134,000
Total March 1938		30,900	3,461,000

1938		KWH Received from P. S.	KWH Delivered to P. S.
April	1	2,200	82,000
	2	2,300	71,000
	3	5,100	34,000
	4	1,700	98,000
	5	2,500	118,000
	6	300	146,000
	7	2,000	137,000
	8	400	116,000
	9	2,600	68,000
	10	2,200	46,000
	11	500	65,000
	12	1,400	100,000
	13	1,100	100,000
	14	800	107,000
	15	2,500	65,000
	16	2,700	98,000
	17	2,600	51,000
	18	1,500	92,000
	19	1,700	98,000
	20	1,400	114,000
	21	1,300	94,000
	22	400	111,000
	23	1,900	85,000

[redacted] Circuit No. ..... Chart Style No. 524478 Date .....

Westinghouse Recording Instrument.





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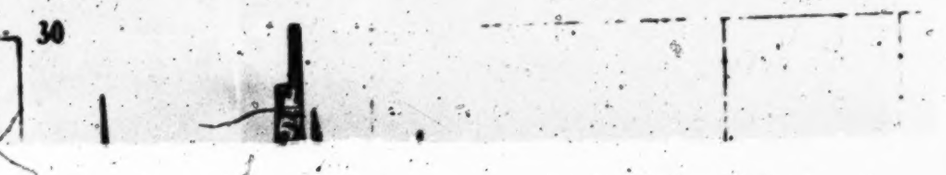
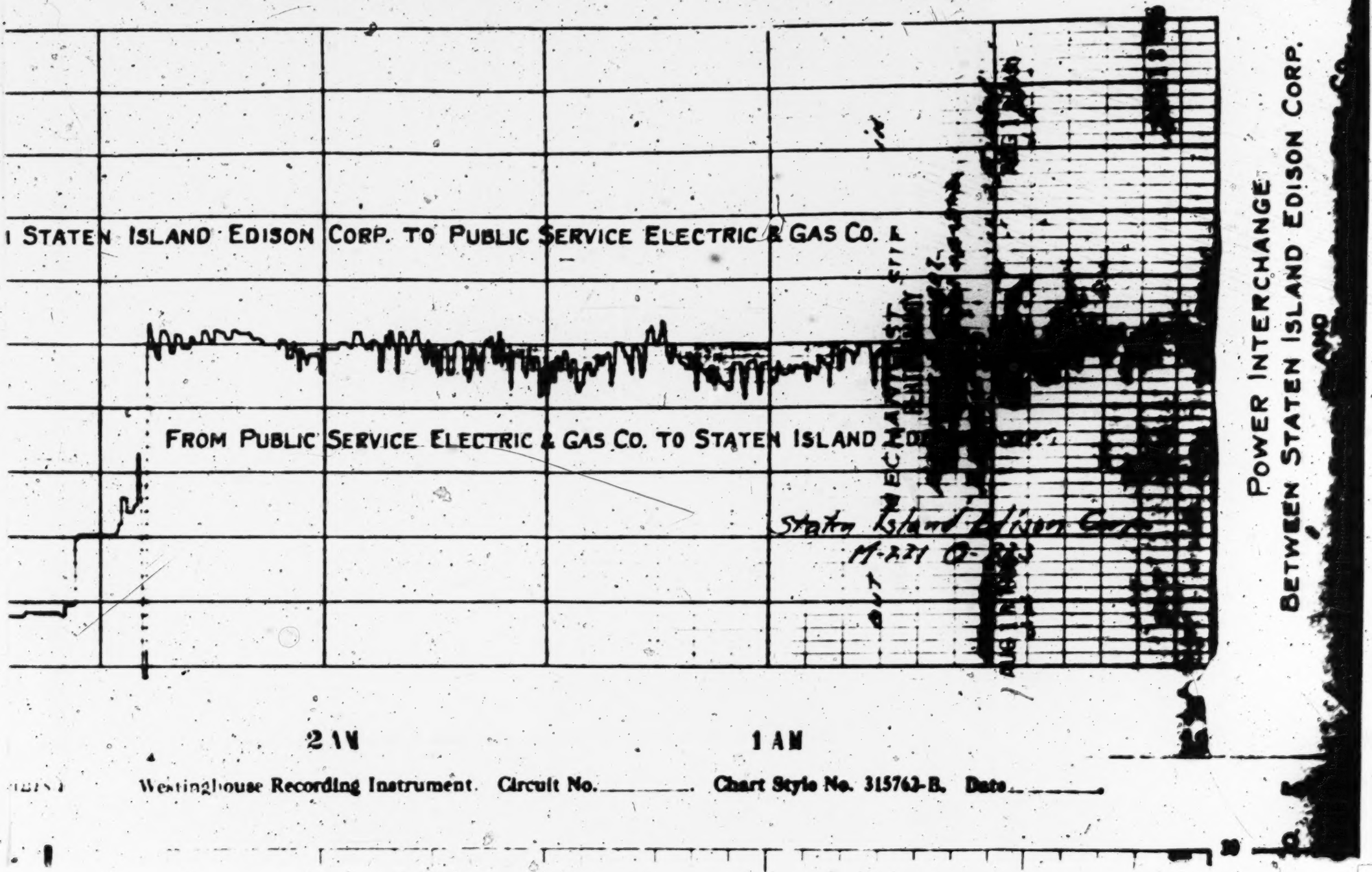
ording Instrument. Circuit No. _____. Chart Style No. 315762-B. Date _____

Westinghouse Recording Instrumer



COMMISSION'S EXHIBIT NO. 21

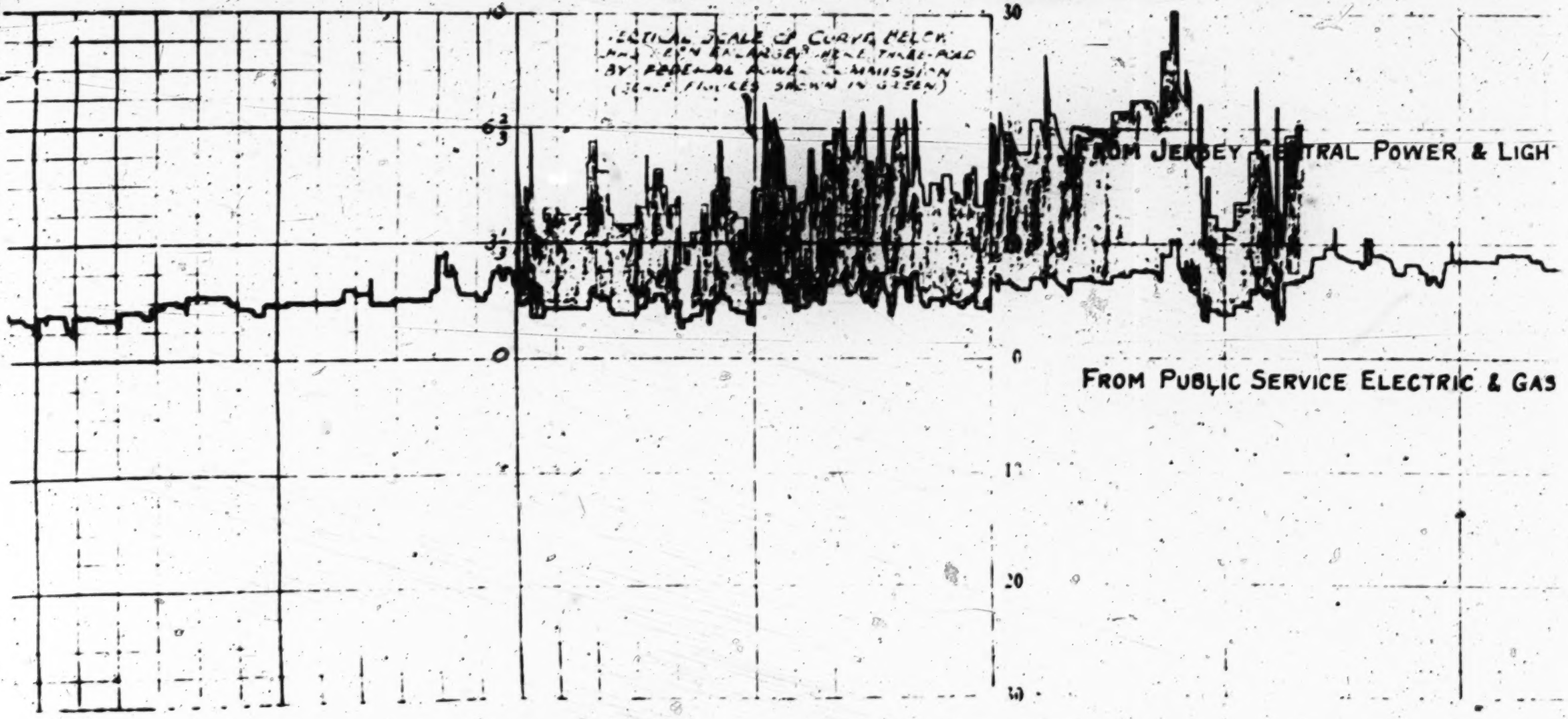
Westinghouse Recording Instrument. Circuit No. .... Chart Style No. 324478 Date.....



Westinghouse Recording Instrument. Circuit No._____. Chart Style No. 315762-B. Date_____

4 AM 3 AM 2 AM

recording Instrument. Circuit No._____. Chart Style No. 315762-B. Date _____. Westinghouse Recording Instr



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2 AM 1 AM

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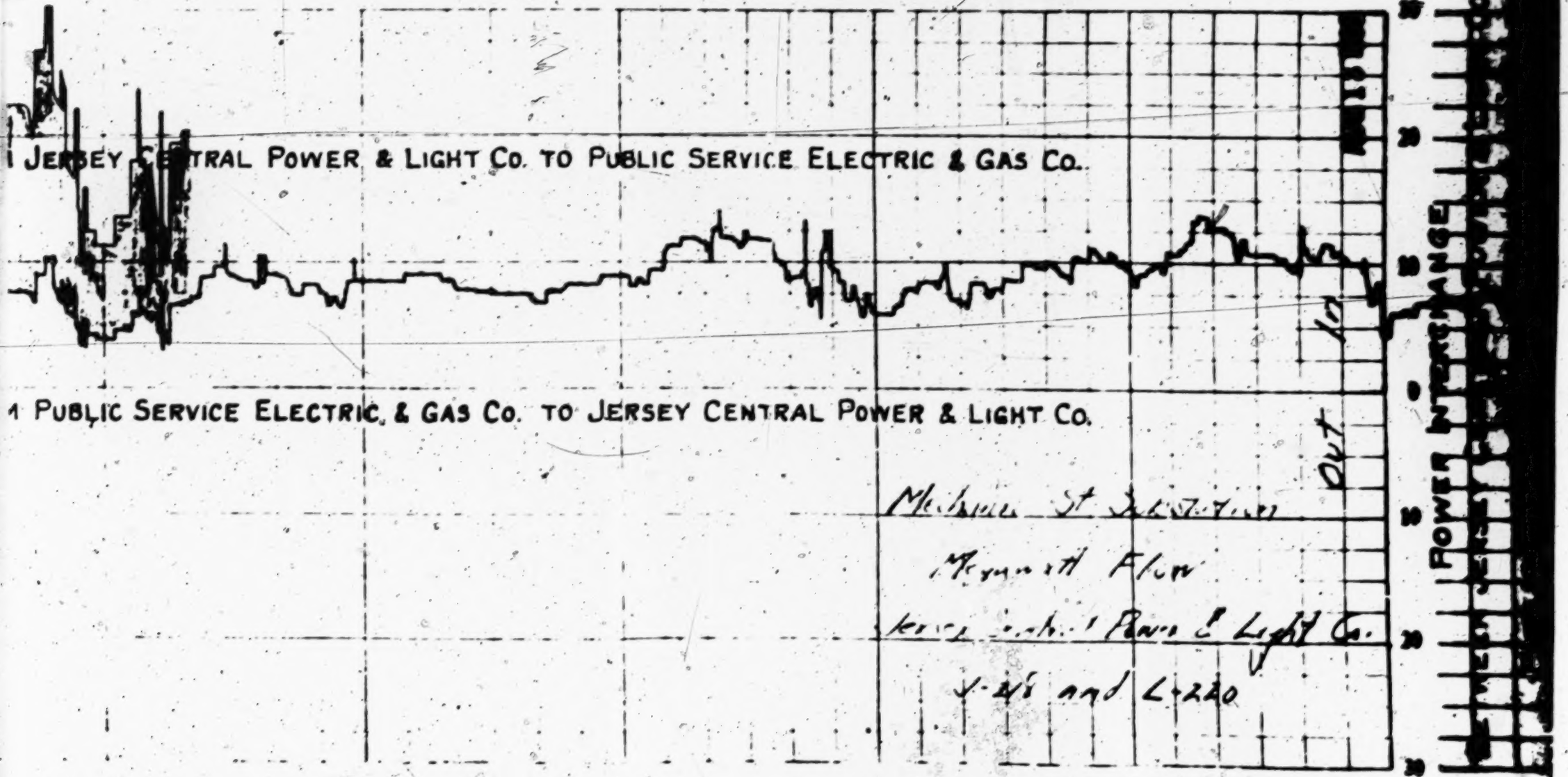

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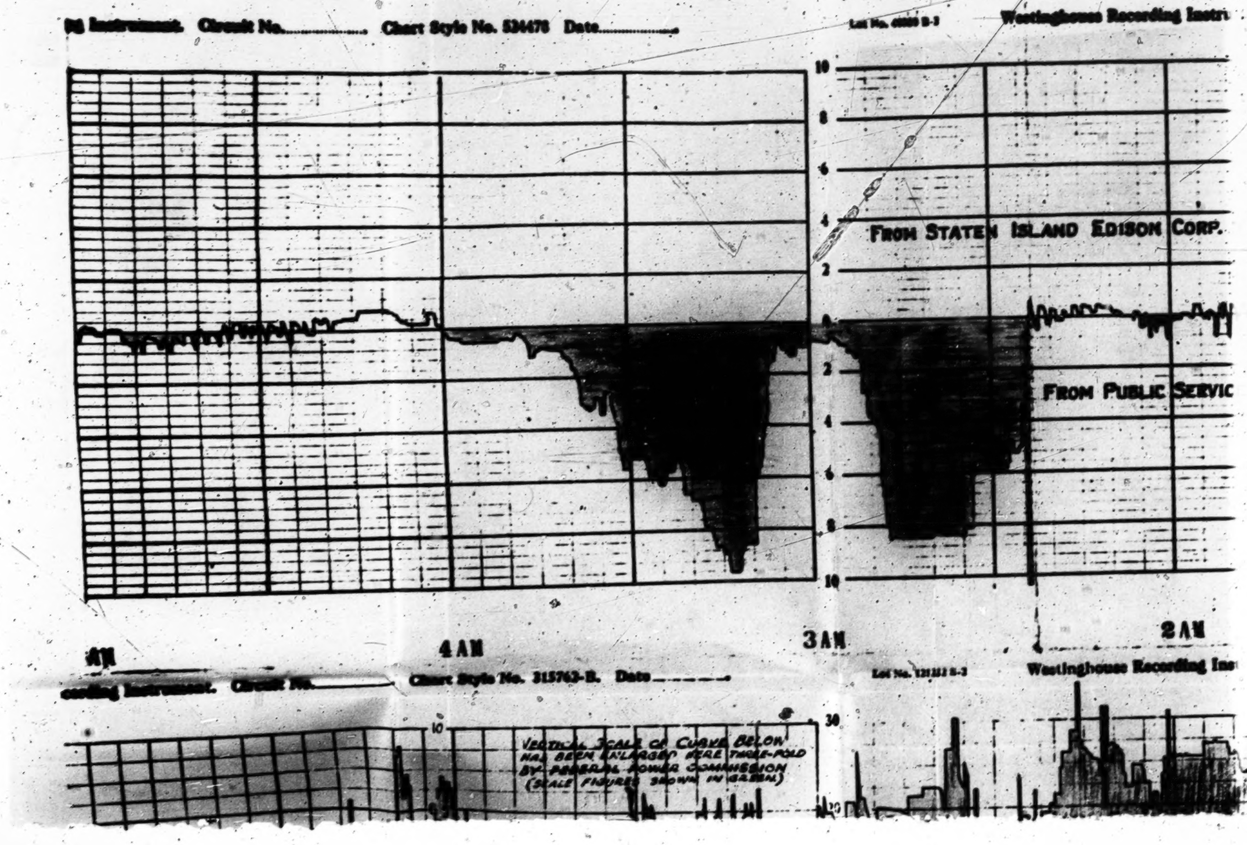
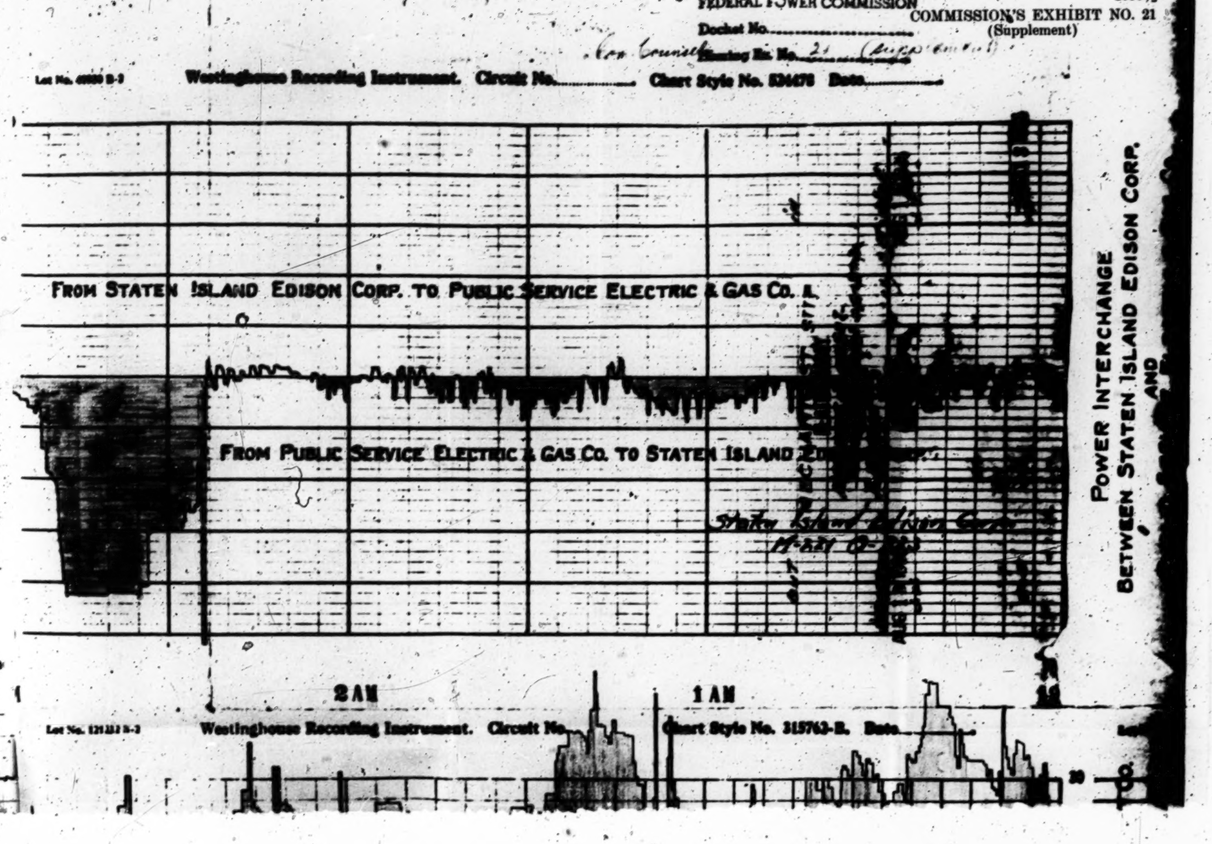
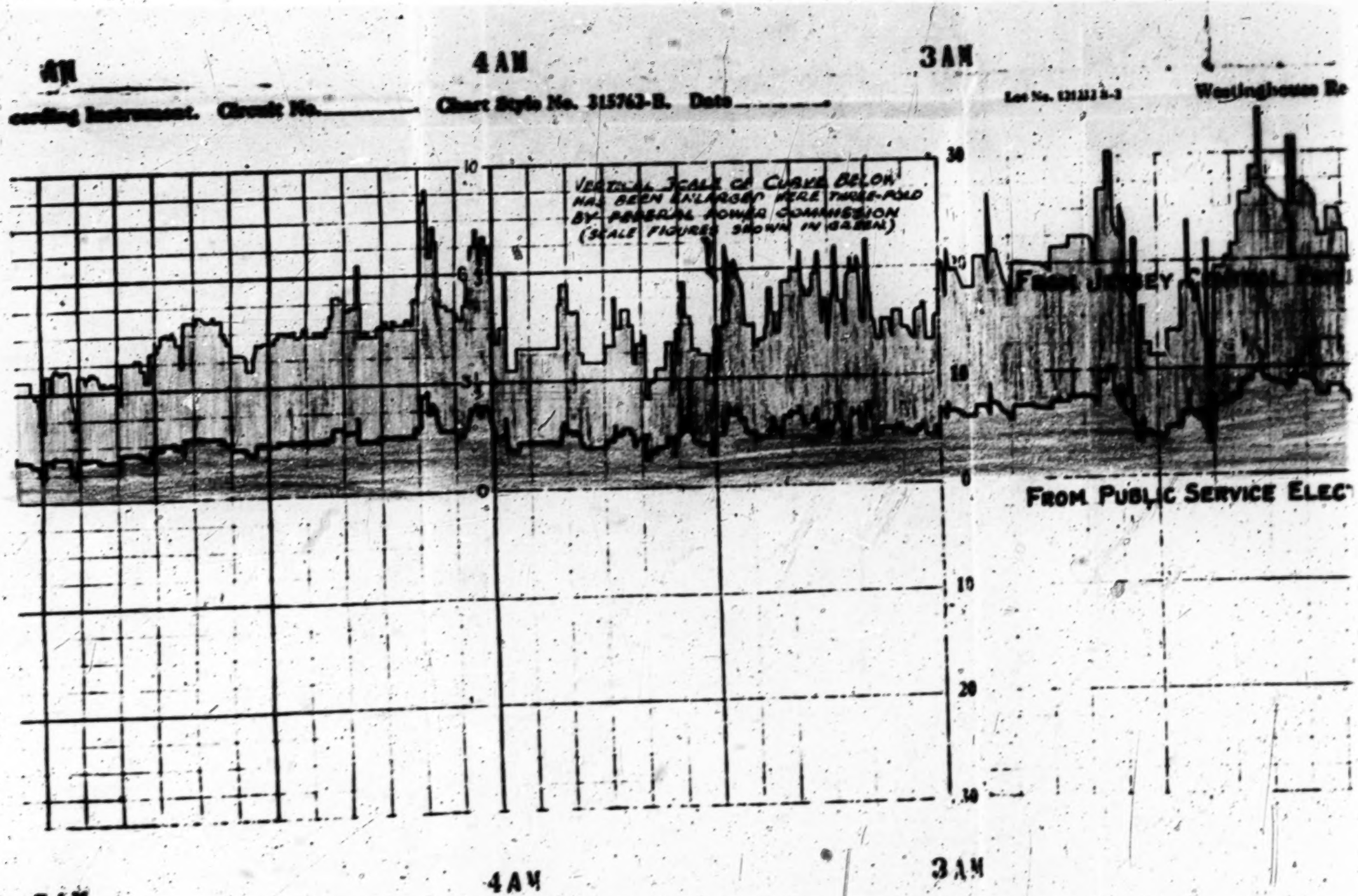
FEDERAL POWER COMMISSION
Docket No.
Hearing Ex. No. 21 (Supplement)

1036½
COMMISSION'S EXHIBIT NO. 21
(Supplement)





POWER INTERCHANGE
BETWEEN STATEN ISLAND EDISON CORP.
AND


4 AM
recording Instrument. Circuit No.
Chart Style No. 315762-B. Date
3 AM
Westinghouse Re
VERTICAL SCALE OF CURVE BELOW HAS BEEN ENLARGED HERE THREE-FOLD BY FEDERAL POWER COMMISSION (SCALE FIGURES SHOWN IN GREEN)
FROM PUBLIC SERVICE ELEC
5 AM
4 AM
3 AM

2 AM 1 AM

Westinghouse Recording Instrument. Circuit No. Chart Style No. 315762-B. Date

From Jersey Central [illegible] Public Service Electric & Gas Co.

FROM PUBLIC SERVICE ELECTRIC & GAS CO. TO JERSEY CENTRAL POWER & LIGHT CO.

Mechanic St. Substation Out

Monmouth Flow

Jersey Central Power & Light Co.

L-218 and L-220

POWER IN MEGAWATTS

2 PM

24 N 1 M 12-N

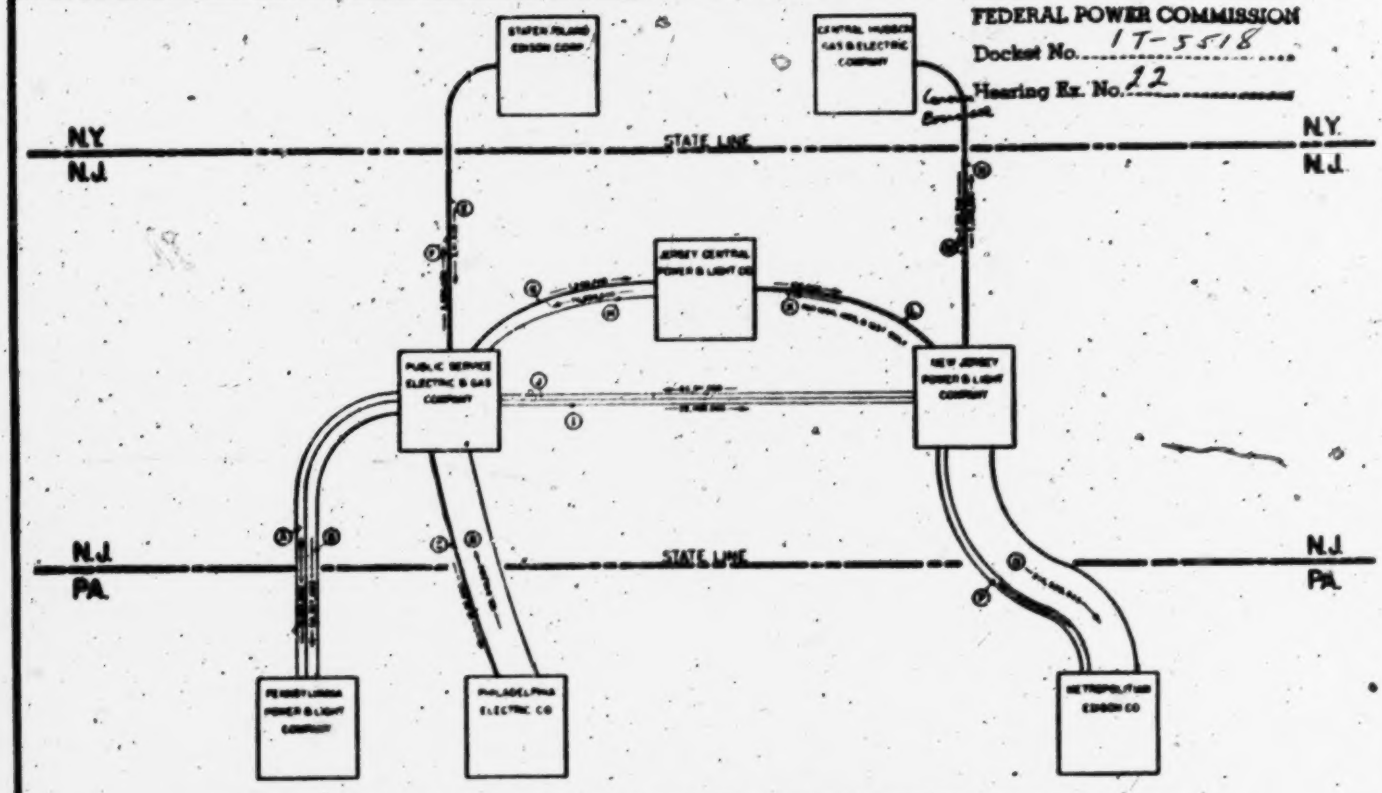
Docketed
Oct. 24 1958

Livingston
3-750
Madison
3-500
Pinewald
3-333
Forked River
Barnegat
LEGEND
Generating Station (Steam)
Substation
3-50 Number & Capacity of Transformers
1-33-ECu Transmission Line (11 K.V. & Over)
Size & Kind of Wire
Voltage in K.V.
Number of Circuits
Transmission Line (Below 11 K.V.)
Interconnection
Service Area
0
5
10
Scale in Miles
MAP SHOWING
Service Area
And Electric Transmission Facilities
of
JERSEY CENTRAL POWER & LIGHT CO.
Aug. 1938

FEDERAL POWER COMMISSION

ELECTRIC ENERGY TRANSACTIONS BETWEEN UTILITY SYSTEMS AFFECTING THE OPERATIONS OF THE JERSEY CENTRAL POWER AND LIGHT COMPANY—1934 TO 1937

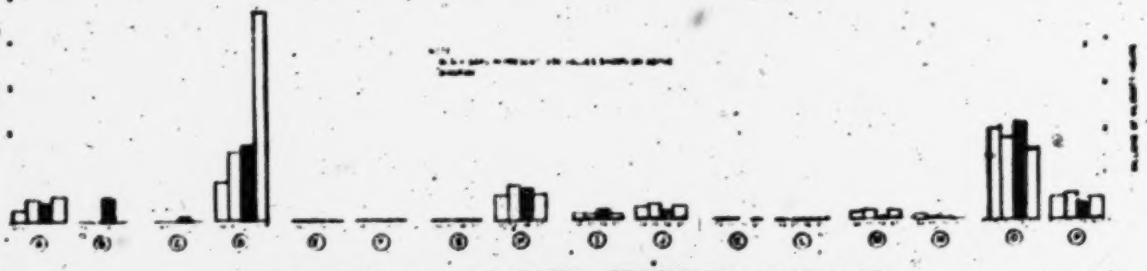
FEDERAL POWER COMMISSION
Docket No. IT-5518
Hearing Ex. No. 12



INTERCHANGE OF ELECTRIC ENERGY BETWEEN COMPANIES AFFECTING INTERSTATE TRANSFERS IN 1936

[1934 TO 1937 INTERCHANGES ARE COMPARED IN BAR CHART BELOW]

FIGURES INDICATE KILOWATT-HOURS, ARROWS SHOW DIRECTION OF FLOW, WIDTH OF BAND PROPORTIONAL TO KILOWATT-HOURS



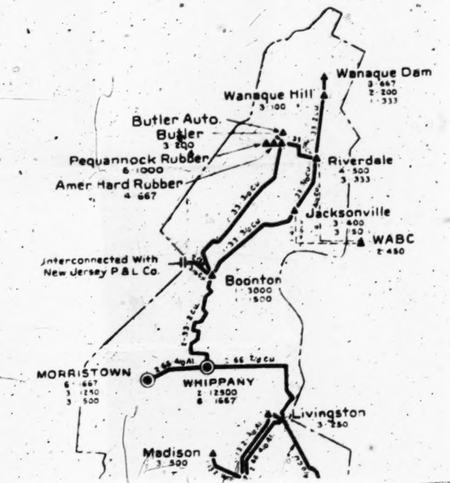
INTERCOMPANY ELECTRIC ENERGY TRANSFERS-1934 TO 1937

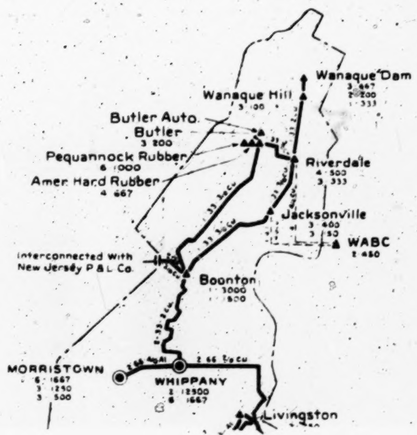
LETTERS (A) (B) (C) (D) ETC REFER TO DIRECTION OF ENERGY TRANSFER AND TO COMPANIES INVOLVED AS SHOWN ON ABOVE DIAGRAM

BUREAU OF ENGINEERING — DIVISION OF POWER RESOURCES AND REQUIREMENTS

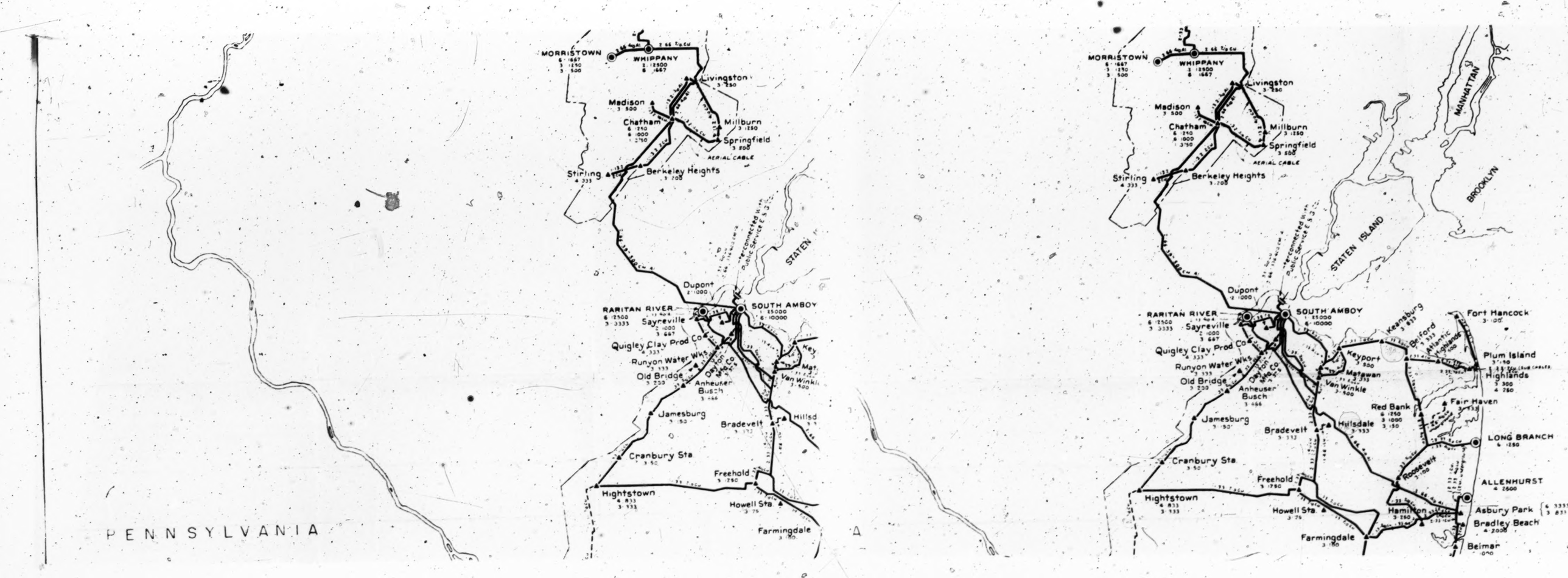
NEW YORK

NEW YORK





FEDERAL POWER COMMISSION
Docket No. II-5518
Hearing Ex. No. DNE
Inter


PENNSYLVANIA
MORRISTOWN
WHIPPANY
Livingston
Madison
Chatham
Millburn
Springfield
AERIAL CABLE
Stirling
Berkeley Heights
STATEN
Dupont
RARITAN RIVER
SOUTH AMBOY
Sayreville
Quigley Clay Prod Co
Runyon Water Wks
Old Bridge
Anheuser Busch
Jamesburg
Bradevelt
Cranbury Sta
Freehold
Hightstown
Howell Sta
Farmingdale
MANHATTAN
BROOKLYN
STATEN ISLAND
Keansburg
Keyport
Matawan
Van Winkle
Hilsdale
Red Bank
Fair Haven
Fort Hancock
Plum Island
Highlands
LONG BRANCH
ALLENHURST
Roosevelt
Hamilton
Asbury Park
Bradley Beach
Belmar

PENNSYLVANIA

NEW JERSEY

Hightstown
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3 333

Howell Sta
3 75

Farmingda
3 80

Standard Silica Sand
3 200

LAKEWOOD
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New Egypt
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Camp Dix

Wrightstown
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interconnected with
Public Service E & G Co

Navy
3 400

New Lisbon
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N J Pulv
1 333
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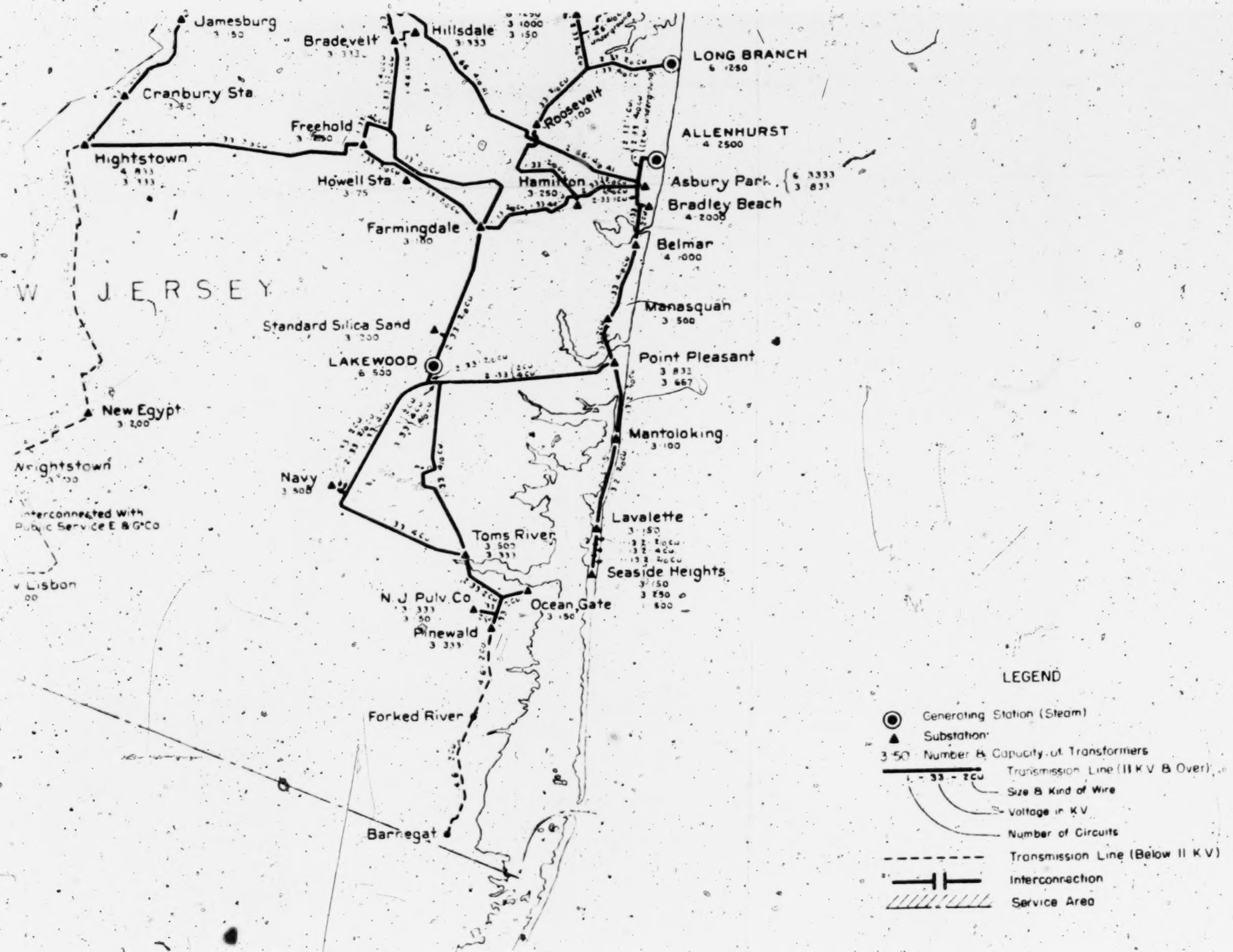
Forked Riv

Barnegat


Jamesburg
3-150
Bradevelt
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Hillsdale
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LONG BRANCH
6-1250
Cranbury Sta
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Roosevelt
3-100
Freehold
3-250
ALLENHURST
4-2500
Hightstown
4-833
3-333
Howell Sta
3-75
Hamilton
3-250
Asbury Park
6-3333
3-833
Bradley Beach
4-2000
Farmingdale
3-100
Belmar
4-1000
W J E R S E Y
Manasquan
3-500
Standard Silica Sand
3-200
LAKEWOOD
6-550
Point Pleasant
3-833
3-667
New Egypt
3-200
Mantoloking
3-100
Navy
3-500
Lavalette
3-150
Toms River
3-500
3-333
Seaside Heights
3-150
3-250
600
N.J. Pulv. Co
3-333
3-50
Ocean Gate
3-150
Pinewald
3-333
Forked River
Barnegat
LEGEND
Generating Station (Steam)
Substation
3-50 Number & Capacity of Transformers
Transmission Line (11 K.V. & Over)
1 - 33 - 2Cu
Size & Kind of Wire
Voltage in K.V.
Number of Circuits
Transmission Line (Below 11 K.V.)
Interconnection
Service Area

INTERVENOR'S EXHIBIT NO. 2

INTERCONNECTION AGREEMENT
BETWEEN
JERSEY CENTRAL POWER AND LIGHT COMPANY
AND
PUBLIC SERVICE ELECTRIC AND GAS COMPANY

THIS AGREEMENT made this 24th day of March, 1931, by and between JERSEY CENTRAL POWER AND LIGHT COMPANY, a corporation organized under the laws of the State of New Jersey, hereinafter referred to as JCP&L, and PUBLIC SERVICE ELECTRIC AND GAS COMPANY, a corporation organized under the laws of the State of New Jersey, hereinafter referred to as PS,

WITNESSETH:

WHEREAS, JCP&L and PS separately own and operate electric supply systems in the State of New Jersey; and

WHEREAS, under an agreement between the parties hereto dated September 11, 1925, PS has been supplying to JCP&L and JCP&L has been receiving from PS, electric energy over and by means of certain transmission facilities connecting the system of PS at Perth Amboy with that of JCP&L at South Amboy; and

WHEREAS, the said agreement and the supply of electric energy thereunder terminated and ceased on January 31, 1931; and

WHEREAS, improvements in service rendered by both parties hereto to their respective customers and other benefits will be made possible by continued operation and use of transmission facilities connecting their systems; and

WHEREAS, the parties hereto accordingly desire to

continue to operate and use transmission facilities connecting their systems and to define and set forth their respective rights, duties, and obligations in connection with the construction, operation, and use of such facilities;

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and conditions hereinafter set forth the parties hereto do hereby agree as follows:—

ARTICLE I
Facilities to be Made Available

SECTION 1. The following interconnecting facilities shall be installed, paid for, owned, and/or made available by JCP&L beginning June 1, 1931 or as soon thereafter as practicable:

Item 1—Two 26,400-volt; three-phase transmission circuits extending from the South Amboy Generating Station of JCP&L to the terminus on the south bank of the Raritan River of the existing submarine cables under that river used by PS to transmit the electric energy supplied to JCP&L under the aforementioned agreement between them dated September 11, 1925, which circuits shall consist of 2/0 A. W. G. or larger copper conductors supported on wood poles except that at the point of crossing the railroad and public highway adjacent to the site of South Amboy Generating Station they may be supported on steel towers or, if necessary, placed in underground conduits.

Item 2—At the South Amboy Generating Station, one 25,000-kv-a., three-phase, nominally 13,200-volt to 26,400-volt transformer which may, if desired by JCP&L, be designed for 13,200-volt to 33,000-volt operation, facilities for changing the voltage ratio under load, disconnecting switches necessary to connect the two circuits specified in Item 1 of this Section to this transformer, and appurtenant facilities.

Item 3—One 13,200-volt oil circuit breaker with a rating suitable to the purposes of this interconnection with appurtenant disconnecting switches, buses, structures, and other equipment necessary to connect the transformer specified in Item 2 of this Section to the 13,200 volt buses at the South Amboy Generating Station.

Item 4—Such 13,200-volt metering equipment at the South Amboy Generating Station as may be necessary and practicable to measure and account for the service to be furnished hereunder and for load dispatching purposes.

SECTION 2. The following interconnecting facilities shall be installed, paid for, owned, and/or made available by PS beginning June 1, 1931 or as soon thereafter as practicable:

Item 1—The two existing 26,400-volt, three-phase, 350,000-circular-mil submarine cables under the Raritan River used by PS to transmit the electric energy supplied to JCP&L under the aforementioned agreement between them dated September 11, 1925.

Item 2—Two 26,400-volt, three-phase transmission circuits extending from the terminus of the aforesaid submarine cables on the north bank of the Raritan River to the Mechanic Street Substation of PS, which circuits shall consist of 350,000-circular-mil aerial cable supported on wood poles and/or 350,000-circular-mil underground cable installed in conduits.

Item 3—One 26,400-volt oil circuit breaker with a rating suitable to the purposes of this interconnection, with appurtenant disconnecting switches, buses, structural steel supports, and other equipment necessary to connect the two circuits specified in Item 2 of this Section to the 26,400-volt buses at the Mechanic Street Substation through this oil circuit breaker.

Item 4—Such 26,400-volt metering equipment at the Mechanic Street Substation as may be necessary and practicable to measure and account for the service to be furnished hereunder and for load dispatching purposes.

SECTION 3. Such of the facilities to be made available under the provisions of the foregoing sections of this Article as are not now in existence shall be designed and constructed in accordance with good practice.

SECTION 4. JCP&L shall have the right to use the wood poles and steel towers specified in Item 1 of Section 1 of this Article and PS shall have the right to use the wood poles and underground conduits specified in Item 2 of Section 2 of this Article for the attachment of other electric transmission and distribution facilities for their respective own purposes. Any such facilities so attached shall be constructed, operated, and maintained in accordance with good practice and in such manner as will not adversely affect the usefulness of the interconnecting circuits for the purposes intended.

Use of any part or all of the interconnecting facilities made available hereunder for any purpose other than provided for herein shall be only by agreement of the parties hereto.

ARTICLE II

Service to be Rendered

In the event of breakdown of equipment, unusual load demands, or other unusual or abnormal condition in the system of either party resulting in need by that party for power in excess of the capacity available from its normal power sources, that party may call on the other party to supply Emergency Power to the extent of, and for the

duration of, the need for such excess power, but not in excess of the carrying capacity of the interconnecting facilities, and the other party shall supply such Emergency Power to the extent that it has capacity available from its normal power sources and is able to supply such Emergency Power without unduly impairing or jeopardizing service in its own system; provided, that for the purpose of determining the entitlement of Emergency Power hereunder said need for excess power shall be diminished by the amount by which the aggregate capacity normally available from the normal power sources of the party calling for such Emergency Power is less than the reasonably expected peak load of its system plus two-thirds of the capacity of either the largest generating unit in the system of JCP&L or the largest generating unit in the system of PS, whichever unit is smaller.

Under the terms of this Article each party's system shall not be considered to include such divisions of its system as are not effectively interconnected with the division in which the interconnecting facilities made available hereunder terminate.

ARTICLE III

Operation

SECTION 1. The energy to be supplied by each party to the other shall be nominally balanced three-phase nominally sixty-cycle alternating current at a voltage of nominally 26,400 volts.

SECTION 2. Each party shall adjust, maintain, and operate the portion of the said interconnecting facilities made available by it in accordance with good modern practice and so as to render, to the greatest extent practicable and reasonable, the services intended hereunder and shall from time to time make such replacements and renewals

as may be required to insure such facilities' being in good operating condition. Each party shall adjust, maintain, and operate the remainder of its system in accordance with good modern practice and in such manner as will, to the greatest extent practicable and reasonable, protect the apparatus and circuits of the other from damage and interruption by lightning, short circuits, potential surges, or otherwise, and prevent any disturbances originating in its system from affecting service in the system of the other party.

ARTICLE IV

Point of Delivery

All electric energy to be supplied hereunder by either party to the other shall be delivered at the point on the south bank of the Raritan River at which the interconnecting facilities made available hereunder by each party are attached to the interconnecting facilities made available hereunder by the other.

ARTICLE V

Metering

SECTION 1. All energy supplied hereunder by PS to JCP&L shall be measured by the metering equipment at Mechanic Street Substation specified in Item 4 of Section 2 of Article I hereof.

All energy supplied hereunder by JCP&L to PS shall be measured by the metering equipment at South Amboy Generating Station specified in Item 4 of Section 1 of Article I hereof.

SECTION 2. The losses associated with the transformation and transmission of Emergency Power over and by means of the interconnecting facilities made available

8. Customer shall indemnify and save harmless Public Service from all cost, expense or liability for damages which may arise resulting from the use of electrical energy on customer's premises or from the presence upon such premises of any of the appliances of Public Service, unless the damages shall be the result of the sole negligence of Public Service or its employees.

9. Customer shall obtain or cause to be obtained all permits necessary to give Public Service or its agents access to the equipment and to enable its conductors to be connected therewith, together with all permits and certificates, municipal or otherwise, required by law or the rules of Public Service, and Public Service shall not be obliged to furnish such service unless and until such permits and certificates shall have been produced to Public Service.

10. Where the electrical energy entering customer's premises is of a type commercially known as 13,000 volts, 60 cycle, 3 phase, or of a type in excess of that voltage, it shall be understood that the electric service is then of a character that the switching operations thereof, unless controlled from the Public Service Station, would have a disturbing effect upon the general service of Public Service; therefore customer shall agree that the cutting in or cutting out of the switching apparatus on the 13,000 volt or 26,000 volt side of the service shall be directed in all such operations by the Public Service load dispatcher for the district.

11. The service and supply of electrical energy by Public Service for the use of owners, tenants or occupants of apartment buildings, or other tenant buildings, will be furnished directly to them as customers of Public Service through Public Service individual meters, and will not be supplied through a master meter for submetering or resale by or to any owner, tenant or occupant of any such building.

hereunder shall be borne by the party receiving such Emergency Power.

SECTION 3. Procedure in respect to maintenance, testing, calibrating, correction and registration records and precision tolerances of metering equipment used to account for the service furnished hereunder shall be in accordance with good practice or as may be agreed on between the parties hereto from time to time.

ARTICLE VI

Rates and Payments

SECTION 1. The party receiving Emergency Power hereunder shall pay therefor to the other party in accordance with the following charges:

(a) Daily Capacity Charge

For each calendar day a capacity charge of ten cents ($0.10) per kilowatt of greatest average demand in any even clock quarter-hour period of the day, which unit of measurement is designated herein as a kilowatt-day, which charge is to be paid monthly.

For the purpose of determining the charges hereunder the average demand in any even clock quarter-hour period shall be taken and considered to be the average draft of power in that period, measured in kilowatts, plus or minus one-seventh (1/7) of the number by which the average draft of lagging reactive power in that period, measured in kilovolt-amperes, respectively exceeds or is less than forty-eight per cent. (48%) of the said average draft of power. For the purpose of this determination leading reactive power shall be considered negative lagging reactive power.

(b) Annual Capacity Charge

At the end of each twelve-month period beginning

12. The rate for electrical service is subject to such changes as the State may require, authorize or allow from time to time; and whenever a change is made, authorized or allowed, whether less or more, the changed rate shall be deemed, taken and considered the rate applicable to the type of service furnished.

13. At the expiration of the stated term, this contract shall continue in force until terminated by thirty (30) days' written notice from either party.

This agreement shall cancel the agreement dated November 24, 1925, between Public Service Electric and Gas Company and Eastern New Jersey Power Company, which latter company was subsequently acquired by the Jersey Central Power and Light Company (party of the second part in this agreement).

IN WITNESS WHEREOF the party of the first part has caused its corporate seal to be hereunto affixed and duly attested, and the party of the second part has caused its corporate seal to be hereunto affixed and duly attested, the day and year first hereinabove written.

PUBLIC SERVICE ELECTRIC AND GAS COMPANY,
By GEORGE BARBER,
Vice-President.

LGP
LH
JM
LI

Attest:
CHARLES M. BREDER,
Secretary.

JERSEY CENTRAL POWER AND LIGHT COMPANY,
By T. R. CRUMLEY,
President.

M
MP

November 1st of each year, designated herein as the service year, the excess of kilowatt-days used by one party over the kilowatt-days used by the other party in that twelve-month period shall be subject to an additional capacity charge as follows:

1¢	per kilowatt-day	for the first	12,000 kilowatt-days.
2¢	" "	" " second	" "
3¢	" "	" " third	" "
4¢	" "	" " fourth	" "
5¢	" "	" " fifth	" "
6¢	" "	" " sixth	" "
7¢	" "	" " seventh	" "
8¢	" "	" " eighth	" "
9¢	" "	" " ninth	" "
10¢	" "	" " tenth	" "
11¢	" "	" " eleventh	" "
12¢	" "	" " twelfth	" "
13¢	" "	" " thirteenth	" "
14¢	" "	" " fourteenth	" "
15¢	" "	" " fifteenth	" "
16¢	" "	" " sixteenth	" "
17¢	" "	" " seventeenth	" "
18¢	" "	" " eighteenth	" "
19¢	" "	" " nineteenth	" "
20¢	" "	" " twentieth	" "

20¢ per kilowatt-day for all additional excess.

(c) Energy Charge

An energy charge for all energy associated with Emergency Power flow, at the rate of six mills ($0.006) per kilowatt-hour, which charge is to be paid monthly.

In the event either party hereto becomes dissatisfied with the charges specified in this Section, said charge shall be subject to reconsideration and revision on written notice by the dissatisfied party to the other, and if the parties hereto are unable to agree on a mutually satisfactory revision the matter shall be subject to arbitration in the manner provided for herein; provided, that no revision of said

charges shall become effective until two and one-half (2½) years after the date of the aforesaid notice.

SECTION 2. All payments for charges incurred under the provisions of this agreement during any calendar month or service year shall be due and payable on the last day of the following calendar month, provided the bill therefor be rendered on or before the tenth day of the said following calendar month, or in the event said bill be rendered later, on the twentieth day following the rendering of the bill.

In case either party disputes the correctness of any portion of a bill, it shall nevertheless make payment of the full undisputed amount. When decision or agreement in respect to the disputed amount is reached, interest thereon at the rate of six per cent. (6%) per annum shall apply from the date on which it was originally due.

ARTICLE VII

Indemnity

Each party will save the other party hereto harmless of and from any and all loss and damage by reason of any bodily injury, death, or damage to property caused or sustained on that portion of the interconnecting facilities owned, controlled, or made available by it, notwithstanding that a judgment may be rendered against the other party hereto; except that each party shall be responsible for all injuries or damages to its own employees, agents, and servants for which compensation is payable under the provisions of any Workmen's Compensation Law.

ARTICLE VIII

Arbitration

In the event a disagreement arises between the parties hereto in regard to their respective rights, duties, and obli-

gations hereunder, or in regard to any matter specified herein as being subject to arbitration, and if the parties hereto are unable to settle such disagreement between themselves, the matter in dispute shall be referred to a Board of Arbitration consisting of three (3) competent disinterested persons skilled in the particular matter which is the subject of dispute.

One (1) of the said arbitrators shall be appointed by each of the parties hereto and the third arbitrator shall be appointed by the two arbitrators thus appointed. The party desiring an arbitration shall give written notice to the other party, setting forth the matter in dispute and naming its arbitrator. If the party upon whom such notice is served neglects or refuses for twenty (20) days thereafter to name by notice to the other party a person to act as its arbitrator or if the two arbitrators named shall fail within twenty (20) days from their appointment to agree upon or appoint the third, then upon written application by either party such second or third arbitrator, as the case may be, may be appointed by the person who at the time is Chairman of the Board of Public Utility Commissioners of the State of New Jersey. The Board of Arbitration so appointed shall hear the evidence submitted by the parties and its award, when reached, shall be in writing and signed by at least a majority thereof. The award of the Board of Arbitration shall in every case be final and conclusive as to the matter in dispute and shall be binding upon the parties, subject, however, to modification, correction, or vacation, or to appeal from a judgment entered thereon as provided by law. In event that the Board of Arbitration shall fail to make a decision within one hundred (100) days after the appointment of the third arbitrator, a new Board of Arbitration shall be chosen in like manner as if none had been previously selected.

Submission to arbitration in the manner herein pro-

vided shall be a condition precedent to the bringing of any action or suit by either party hereto against the other on account of any matter within the terms of this agreement.

Each party hereto shall pay the cost of its own arbitrator and both parties shall assume and pay, share and share alike, the cost of the third arbitrator and any other expenses incurred, provided the award of the arbitrators does not provide a different division of expense.

ARTICLE IX

PS-Monmouth Lighting Company Agreement

Nothing herein contained is intended to cancel or modify the agreement dated December 1, 1924 between PS and Monmouth Lighting Company, a predecessor company of JCP&L, covering the construction of a second and auxiliary line, which agreement shall remain in full force and effect.

ARTICLE X

Waiver of Rights

Any waiver at any time of the rights of either party hereto as to any default of the other party or any other matter arising hereunder shall not be deemed a waiver as to any subsequent default or other matter subsequently occurring.

ARTICLE XI

Effective Date and Termination

This agreement shall become effective on the date first above written and it shall continue in full force and effect until terminated. Either party shall have the right at its option to terminate this agreement by giving to the other

not less than two and one-half (2½) years' notice in writing of its intention so to do and this agreement shall terminate upon the date specified in said notice; provided, that no such notice shall operate to terminate this agreement prior to June 1, 1941.

ARTICLE XII

Assignment

The terms and provisions of this agreement shall inure to and bind not only the parties hereto, but also their respective successors and assigns; provided, that no assignment thereof shall be made by either party hereto without the written consent of the other unless such assignment shall be made to another company acquiring all or substantially all of the electric generation and transmission facilities of the assignor.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be signed in their respective names, each by duly authorized officers, and have further caused their respective corporate seals to be hereunto affixed and attested as of the day and year first above written.

Y.C.Y.
W.H.L.

JERSEY CENTRAL POWER AND LIGHT COMPANY
By T. R. CRUMLEY,
President.

Attest:
RUSSELL W. AUL,
Asst. Secretary

S.B. J.N.BB.
M.P. E.A.
N.W. N.J.W.

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
By EDGAR ALLEGANT,
Vice-President.

Attest:
CHARLES M. BREDER,
Secretary

From document in Legal Record Dept. EEP.
Remarks .....

INTERVENOR'S EXHIBIT NO. 3

THIS AGREEMENT, made this nineteenth day of July, Nineteen hundred and thirty-five, between PUBLIC SERVICE ELECTRIC AND GAS COMPANY, a corporation of the State of New Jersey, hereinafter called "Public Service," party of the first part, and JERSEY CENTRAL POWER AND LIGHT COMPANY, a corporation of the State of New Jersey, hereinafter called "Customer," party of the second part:

WITNESSETH: That for and in consideration of the mutual covenants herein contained the said parties hereto do hereby mutually agree as follows:

Public Service will furnish to Customer at a terminal point located on the transmission line of Public Service between Comical Corners and a point on the Pemberton-Wrightstown Road where said transmission line enters the Government's property known as Camp Dix, Wrightstown, New Jersey, five hundred thirty-three (533) horse power (four hundred (400) kilowatts) maximum demand of electrical energy of the type commercially known as 13,000 volts, 60 cycle, 3 phase, alternating current, for the operation of motors and other electrical apparatus for a period

of one (1) year from the first day of June, Nineteen hundred and thirty-five, at the following rate or rates:

A demand charge shall be paid by Customer each month during the term hereof, to be determined as follows:

$100.00 for the first 50 kilowatts or less of monthly maximum demand;

$1.60 per kilowatt for the next 150 kilowatts of monthly maximum demand;

$1.40 per kilowatt for the next 300 kilowatts of monthly maximum demand;

$1.30 per kilowatt for the next 500 kilowatts of monthly maximum demand;

$1.20 per kilowatt for the next 1000 kilowatts of monthly maximum demand;

$1.10 per kilowatt in excess of 2000 kilowatts of monthly maximum demand.

In addition to the foregoing demand charge, Customer shall pay to Public Service each month an energy charge for the electrical energy furnished, as measured by the meter or meters supplied by Public Service, as follows:

3¢ per kilowatt hour for the first 5,000 kilowatt hours used in each month;

1¢ per kilowatt hour for the next 95,000 kilowatt hours used in each month;

.9¢ per kilowatt hour for the next 150,000 kilowatt hours used in each month;

.8¢ per kilowatt hour for the next 250,000 kilowatt hours used in each month;

.6¢ per kilowatt hour for the next 250,000 kilowatt hours used in each month;

.5¢ per kilowatt hour in excess of 750,000 kilowatt hours used in each month.

Night Service

When Customer has a consumption during the night periods in any month, of not less than 30% of the total consumption for such month, the consumption in such month during the night periods, as determined by the registration of a separate meter supplied by Public Service, shall be billed at six-tenths of one cent per kilowatt hour, subject to the discount allowed for Primary Service. When Customer's Monthly Maximum "Day Period" Demand in such month is less than Customer's Monthly Maximum Demand, both determined in accordance with the provisions herein set forth, a deduction shall be made in the Demand Charge equivalent to the amount of such difference in kilowatts of demand at one-half (½) the rate for the Demand Charge. The "day period" and the "night period" shall be stipulated by Public Service from time to time, but until further notice are hereby defined as being the period from 8:00 A. M. to 8:00 P. M. and the period from 8:00 P. M. to 8:00 A. M. respectively.

The above rate will be applied to each installation or plant. The electrical energy used by the same customer in different locations will not be combined.

Determination of Maximum Demands

The Customer's Daily Maximum 24-Hour Demand shall be the greatest average number of kilowatts supplied by Public Service during any fifteen minute interval in each calendar day.

The Customer's Monthly Maximum Demand shall be the greatest average of the Daily Maximum 24-Hour Demands selected from four different days in the current month; or, seventy-five per cent (75%) of the highest Daily Maximum 24-Hour Demand, whichever is the higher.

The Customer's Daily Maximum "Day Period" Demand shall be the greatest average number of kilowatts

supplied by Public Service during any fifteen minute interval in each day period.

The Customer's Monthly Maximum "Day Period" Demand shall be the greatest average of the Daily Maximum "Day Period" Demands selected from four different days in the current month; or, seventy-five per cent (75%) of the highest Daily Maximum "Day Period" Demand, whichever is the higher.

The Daily Maximum Demands shall be determined by the registration of recording demand instruments furnished by Public Service and subject to the provisions contained in the Power Factor Clause. Where the use of electrical energy is intermittent or subject to violent fluctuation, Public Service reserves the right to base the Customer's Maximum Demands upon five minute instead of fifteen minute intervals.

Power Factor

All electrical apparatus used by the Customer shall be subject to the approval of Public Service, and shall be of good commercial efficiency and of such character as to introduce no disturbing elements into the electrical system of Public Service. The average power factor under operating conditions of customer's load at the point where the electricity is metered shall not be less than 80%. Public Service reserves the right to inspect Customer's installed load and also the right to place at its own expense reactive component meters or other instruments on the premises of Customer for purposes of measuring the kilovolt-ampere demand, power factor or for other tests.

Primary Service Discount

Where a Customer furnishes, installs and maintains all transforming devices, including step-down transformers, the meter or meter supplied by Public Service for measuring the electrical energy will be placed on the

high tension side of the transforming devices or step-down transformers. Public Service will, in consideration thereof, allow the Customer a discount of 5% for service metered at 2,200 or 4,150 volts, and a discount of 10% for service metered at 13,000 or 26,000 volts, from the total amount of each monthly bill. Such discount, however, shall not apply to reduce the minimum charge.

Minimum Charge

The monthly minimum charge shall be an amount equal to one-half (½) the highest monthly demand charge in any month during the immediately preceding eleven months, but shall in no case be less than $100.00.

It is understood and agreed that the form of service herein contracted for is intended to supply electrical energy to another electrical utility of the State of New Jersey to be by it distributed over its own lines to consumers. In consideration thereof, Public Service will allow the Customer a discount of 7½% from the total amount of each monthly bill, calculated at the rate or rates set forth in this contract.

It is understood that Public Service in the future may change its distribution lines supplying Customer from 13,000 volts, 60 cycle, 3 phase, alternating current, to 26,000 volts, 60 cycle, 3 phase, alternating current, and it shall have the right at any time to make such change and furnish thereafter to Customer the latter type of service, Customer agreeing to provide apparatus and equipment suitable to receive both types of service, or to make such change in Customer's apparatus and equipment as may be necessary when Public Service requires it at Customer's expense.

Nothing herein contained shall be construed as obligating Public Service to furnish service of a greater capacity than that which may be safely transmitted over

its 13,000 volt line; it being further understood and agreed that Customer's requirements shall be limited to the available capacity of the Public Service transmission line, but Customer's demand in no case shall be limited to less than the five hundred thirty-three (533) horse power (four hundred (400) kilowatts) herein contracted for.

It is understood and agreed that Public Service shall not supply electrical energy in municipalities in New Jersey east of the established boundary line, as defined in agreement between Public Service and Eastern New Jersey Power Company dated November 24, 1925, (except that nothing herein contained shall be construed as preventing Public Service from supplying electrical energy in the territory known as Camp Dix and now owned by the United States Government, located at or near Wrightstown, New Jersey, and now being supplied with electric service by Public Service, either during the period of this agreement or in the future), nor shall Customer supply electrical energy in any municipality in said state west of said boundary line, nor in Camp Dix.

This contract is made upon the following terms and conditions:

1. Bills for service furnished shall be payable upon presentation.

2. No change shall be made in customer's equipment, nor in the type, size or total electrical capacity of the devices connected to the service, nor shall the electrical energy be used except for the equipment scheduled, nor shall any other electrical service be introduced or permitted in connection with such equipment without previous written notice to and written consent of Public Service.

3. Public Service will furnish meter and service apparatus necessary to connect customer's equipment with its lines in accordance with Public Service wiring and

service connection rules. All apparatus furnished at the expense of Public Service shall remain its property and may be removed by it at any time after the discontinuance of service. The wiring, equipment and appurtenances shall be furnished by customer, and shall conform to the National Electrical Code, and to the rules and regulations of Public Service, and to all lawful municipal regulations.

4. All repairs to customer's property shall be made by customer, who shall maintain the equipment in the condition required by the Fire Underwriters or by Public Service.

5. Customer shall provide for the safe-keeping of the meter and other apparatus of Public Service, and shall not interfere with such equipment nor permit access thereto, except by authorized employees of Public Service. In case of loss or damage to the property of Public Service from the act or negligence of the customer or his agents or servants, or of failure to return apparatus supplied by Public Service, customer shall pay to Public Service the value of such property.

6. Public Service shall use all due diligence in providing a regular and uninterrupted supply of electrical energy, but in case the supply of electrical energy shall be interrupted or be defective or fail by reason of accident, State or municipal interference, or other cause, Public Service shall not be liable therefor; but, should such interruption, defect or failure in the service result from causes within the control of Public Service, customer may have the service discontinued by written notice immediately delivered to Public Service.

7. Public Service shall have right of access to customer's premises at all reasonable times for the purpose of reading meters, inspecting or repairing apparatus used in connection with its service, or removing its property.

Attest:
O. FELLER,
Secretary.

From document filed in Legal Record Dept. E. E. L.

INTERVENOR'S EXHIBIT NO. 4

INTERCONNECTION AGREEMENT
Between
NEW JERSEY POWER & LIGHT COMPANY
and
JERSEY CENTRAL POWER & LIGHT COMPANY

THIS AGREEMENT made this 6th day of February, 1937, by and between NEW JERSEY POWER & LIGHT COMPANY, a corporation organized under the laws of the State of New Jersey, hereinafter referred to as "Power Company," and JERSEY CENTRAL POWER & LIGHT COMPANY, a corporation organized under the laws of the State of New Jersey, hereinafter referred to as "Jersey Central."

WITNESSETH:

WHEREAS, Power Company and Jersey Central separately own and operate electric systems; and

WHEREAS, the parties hereto now have an interconnection between their respective systems near Boonton, New Jersey; and

WHEREAS, it may be desirable in the future to make interconnections at other points in order to afford the means of interchanging energy between the two systems on a basis that will be for their mutual advantage and will render increased protection of service to all customers; and

WHEREAS, the parties hereto desire to enter into an arrangement for the purchase and sale and/or the interchange of electric energy under certain terms and conditions:

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and conditions hereinafter set forth, the parties hereto do agree as follows:

ARTICLE I

CANCELLATION OF EXISTING AGREEMENT

The existing agreement between Power Company and Jersey Central, dated March 27, 1935, covering the purchase and sale and the interchange of electric energy between the parties hereto shall be terminated at the time when this new agreement becomes effective.

ARTICLE II

FACILITIES TO BE MADE AVAILABLE

Power Company owns and maintains a wood pole transmission line carrying two (2) 33,000 volt circuits, which connects with a similar transmission line carrying similar circuits, owned and maintained by Jersey Central, at a point in Morris County, New Jersey, located on the right-of-way of the Boonton Branch of the Delaware, Lackawanna & Western Railroad Company approximately twelve feet (12') south of the intersection of the boundary line of Denville Township and the common boundary line of Mountain Lakes Borough and Parsippany-Troy Hill Township.

It is agreed between the parties hereto that, in order to fully carry out the intent of this agreement, it will be necessary to establish one or more interconnections between Power Company and Jersey Central which will

allow the transfer of larger blocks of power than is possible over the existing interconnection. The costs of establishing such additional interconnections shall be borne by the two companies under a plan to be mutually agreed upon. Each of the parties hereto will make available its facilities for such additional interconnections as may be required.

ARTICLE III

OPERATION

Each party hereto shall adjust, maintain and operate their portion of such interconnection facilities in accordance with good standard practice so as to carry out, to the greatest extent practicable and reasonable, the intent of this agreement and shall from time to time make such replacements and renewals as may be required to insure such facilities being in good operating condition.

In order to avoid interference with the operation of the system of either company, both parties hereto agree to confer regarding the operation in parallel with the system of any other company. Any excess KVA capacity in service in either system may be utilized in absorbing the wattless current of both systems. The cost of generating and transmitting this wattless current shall be apportioned between the two companies in proportion to the respective benefits obtained.

ARTICLE IV

SERVICES TO BE RENDERED

(A) Firm Power. Jersey Central agrees to sell and Power Company agrees to purchase firm power in the minimum amount of 3,000 KW and 666,666 KWH per month and to pay for this energy at the following rate:

Demand Charge $2,500.00 per month
Energy Charge Economy Flow prices as hereinafter described.

"The terms and conditions governing the price of any additional firm power which Power Company may desire and which Jersey Central may be willing to supply will be agreed upon at a conference between the parties hereto but such additional power shall be at a demand charge of not less than One ($1.00) Dollar per KW per month.

(B) Emergency Power. In the event of breakdown of equipment, unusual load demands or other unusual or abnormal conditions in the system of either party resulting in need by that party for energy in excess of that available from its normal sources of supply, that party may call on the other party to supply such emergency energy as it may have available and may be able to supply. The party called upon to supply such emergency energy to be the sole judge of the availability of and its ability to supply such energy.

Full cost (not including any fixed charges on investment) of such breakdown or emergency service shall be borne by the receiving company, plus an overhead charge of 25%, unless some other charge is mutually agreed upon by the parties hereto.

(C) Economy Flow Service. Economy Flow Energy shall be defined as energy supplied by one company to the other, which energy could have been supplied to its own system by the receiving company, but at a cost higher than that of the supplying company.

While each company shall at all times be the sole judge of its ability to supply or to receive such energy, it is the intent of this agreement that economy flow energy will be transferred between the two companies when it is mutually profitable to do so.

The rate to be paid per kilowatt hour for such economy flow energy shall be the sum of the following three items: (a) The incremental coal cost per KWH at the generating station bus plus an overhead charge of 20%. The price of coal used in determining coal costs shall be the cost of coal delivered alongside of plants, plus 5% to cover storage, handling and shrinkage plus 5¢ per ton for unloading. (b) Incremental maintenance cost, which shall be one tenth (1/10) of one mill (.001) per KWH. (c) A percentage of items (a) plus (b) to cover transformation and transmission losses from the bus bar to the point of delivery. Such percentage shall be determined by the engineers of the two companies.

If it becomes necessary to operate additional units or plants for the supplying of such economy flow energy, there shall be added to the cost as above determined such additional cost for fuel, labor and maintenance as will fully reimburse the supplying company for all expenses to which it has been subjected, by reason of the transfer of such economy flow energy.

ARTICLE V

METERING

All energy supplied by either company at the interconnection now existing, as described in Article II, shall be measured by metering equipment now installed in the Boonton substation of Jersey Central, which metering equipment is now owned jointly by the two parties hereto.

All energy supplied by either company at interconnection points, to be decided upon later, shall be measured by metering equipment at such interconnection point to be mutually agreed upon.

Said metering equipment may be inspected or tested by either party in the presence of representative of the

other party at such times as may be mutually agreed upon.

Any meter found to be not more than two per cent. in error shall be considered correct. If any meter shall be found in error in excess of two per cent., the consumption as recorded since the last monthly reading previous to the test shall be corrected by one-half of the percentage in error, provided this percentage is less than ten percent., but no correction shall extend back beyond the date of any prior reading. Should the error in the meter exceed ten percent., the probable consumption shall be mutually agreed upon.

ARTICLE VI

TERMS OF CONTRACT

This agreement shall become effective upon the date hereof and shall continue in full force and effect for a period of five (5) years and thereafter until terminated as herein provided, to wit, either party shall have the right to terminate this agreement by giving to the other party hereto not less than two (2) years notice in writing of its intention to terminate this contract in its entirety, and this agreement shall thereupon terminate on the date specified in said notice, provided, however, that no notice shall operate to terminate this agreement prior to December 31, 1942.

It is agreed, however, between the parties hereto that the minimum charge for firm power, as outlined in Article IV, shall not be made effective until a new interconnection is established between the systems of the Power Company and Jersey Central.

ARTICLE VII

TERMS OF PAYMENT

Bills shall be rendered monthly for all service pro-

vided by the terms of this contract in accordance with the charges herein provided, and shall become due and payable within fifteen (15) days from the receipt thereof.

ARTICLE VIII
INDEMNITY

Each party shall save the other party harmless of and from any and all loss and damage by reason of any bodily injury, death, or damage to property caused or sustained in that portion of the interconnecting facilities owned, controlled or made available by it, notwithstanding that a judgment may be rendered against the other party hereto; except that each party shall be responsible for all claims of its own employes, agents and servants growing out of any Workmen's Compensation Law. It is expressly agreed that neither party shall be liable for consequential damages under this agreement.

ARTICLE IX
INCREASED TAXES

Either party hereto selling energy as herein provided to the other shall be reimbursed by the other against the imposition of any new taxes or any increased costs due to actions of any governmental, state or regulatory body relating to the production or sale of power under this contract.

ARTICLE X

In order to fully carry out the intentions and spirit of this agreement each company shall, when requested, supply to the other company all data and information which may be used or useful in arriving at the cost of emergency power and economy flow energy as covered by Article IV.

ARTICLE XI

The terms and provisions of this agreement shall inure to and bind not only the parties hereto, but also their respective successors and assigns; provided, however, that no assignment thereof shall be made by either party hereto without the written consent of the other.

NEW JERSEY POWER AND LIGHT COMPANY,
J. M. HERR,
Vice-President.

Attest:
C. A. DAUGHERTY,
Secretary.

JERSEY CENTRAL POWER AND LIGHT COMPANY,
By: T. R. CRUMLEY,
President.

Attest:
RUSSELL W. AUL,
Asst. Secretary.

(Original filed in Legal Record Dep't. by E. E. P.)

RESPONDENT'S EXHIBIT NO. 1

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

Newark, New Jersey.
January 20, 1936.

Mr. F. D. Campbell, President,
Staten Island Edison Corporation,
St. George, Staten Island, N. Y.

Dear Sir:

The operation of the interconnection between Staten Island Edison Corporation and Public Service Electric and Gas Company has heretofore been entirely by oral arrangement. Such operation has been satisfactory but it is now desirable that the basic terms under which power has been, and shall continue to be, interchanged be stated and agreed to by the two companies.

The charge for emergency service for each day shall be ten cents (10¢) per kilowatt of greatest average demand in any even quarter-hour period of that day, this unit of measurement being designated as a kilowatt-day, which charge is to be paid monthly.

At the end of each twelve-month period beginning December 1 the excess of kilowatt-days used by one company over the kilowatt-days used by the other company shall be subject to an additional capacity charge as follows:

1¢ per kilowatt-day for the first 5,000 kilowatt-days
2¢ per kilowatt-day for the second 5,000 kilowatt-days
3¢ per kilowatt-day for the third 5,000 kilowatt-days
4¢ per kilowatt-day for the fourth 5,000 kilowatt-days

and so on, up to 20¢ for the twentieth 5,000 kilowatt-days' excess use and 20¢ per kilowatt-day for all additional excess use.

All energy associated with emergency power flow shall be charged at the rate of eight mills ($0.008) per kilowatt-hour.

Economy energy is energy interchanged as a result of cost differentials on a schedule mutually agreed upon from day to day. The rate for economy energy shall be based on the cost to the sending company and the replacement value to the receiving company and shall be such that the savings resulting from the interchange shall be divided equally between the two companies.

Incidental energy is energy flowing on the interconnection tie when no scheduled interchange exists. The rate for incidental energy shall be mutually agreed upon from time to time depending upon the operating conditions of the two systems.

This arrangement may be terminated by either party upon reasonable notice.

If the above meets with your approval kindly sign both copies and return one of them to me.

Yours very truly,

J. T. BARRON,
Vice President
in Charge of Electric Operation.

Approved:
F. D. CAMPBELL,
President,
Staten Island Edison Corporation.

RESPONDENT'S EXHIBIT NO. 2

STATEN ISLAND EDISON CORPORATION
PURCHASES OF EMERGENCY ENERGY
AUGUST 26, 1935 to DECEMBER 31, 1935

Hours

Date	*From*	*To*	*KWH*
Nov. 3	6:49 AM	6:50 AM	None

STATEN ISLAND EDISON CORPORATION
PURCHASES OF EMERGENCY ENERGY
1936

Hours

Date	*From*	*To*	*KWH*
Feb. 25	6:44 AM	6:46 AM	None
June 18	7:35 PM	7:39½ PM	383
Aug. 12	9:07 AM	9:08 AM	75
Aug. 13	2:25½ AM	2:47 AM)	3213
	3:07 AM	3:11 AM)	
Dec. 11	8:29 AM	8:31 AM	54
			3725

STATEN ISLAND EDISON CORPORATION
PURCHASES OF EMERGENCY ENERGY
1937

Hours

Date	*From*	*To*	*KWH*
Feb. 22	1:44 AM	5:50 AM	3400
June 3	2:38 PM	2:39 PM	None
Aug. 21	7:06 AM	7:08 AM	None

STATEN ISLAND EDISON CORPORATION
PURCHASES OF EMERGENCY ENERGY
January 1, 1938 to March 14, 1938

Date	*Hours From*	*To*	*KWH*
Jan. 25	1:00 AM	3:35 AM	1000

RESPONDENT'S EXHIBIT NO. 3

STATEN ISLAND EDISON CORPORATION
PURCHASES OF ECONOMY ENERGY
August 26, 1935 to December 31, 1935

Date	*Hours From*	*To*	*KWH*
Aug. 27	9:00 AM	4:00 PM	7900
Sept. 1	7:45 PM	10:00 PM	1900
Sept. 8	7:25 PM	10:30 PM	6300
Sept. 9	5:00 PM	6:40 PM	4800
Sept. 15	8:00 PM	10:00 PM	1800
Sept. 29	6:15 PM	9:30 PM	4700
Oct. 6	5:45 PM	10:00 PM	8400
Oct. 13	6:30 PM	9:30 PM	4000
Oct. 27	5:30 PM	9:30 PM	4800
Nov. 3	5:30 PM	9:45 PM	7200

STATEN ISLAND EDISON CORPORATION
PURCHASES OF ECONOMY ENERGY
1936

Date	*Hours From*	*To*	*KWH*
Mar. 27	7:45 AM	3:00 PM	13700
Apr. 27	7:45 AM	10:30 AM	3500

STATE ISLAND EDISON CORPORATION

Summary of transactions with Public Service Electric and Gas Company
August 26, 1955 to March 14, 1958

FEDERAL POWER COMMISSION
Docket No. 17-5518
Rep Hearing Ex. No. 5

KILOWATT HOURS	1955 August 26th to December 31st	1956	1957	1958 January 1st to March 14th
Incidental flow:				
Delivered to Public Service Electric and Gas Company	1 125 000	3 111 400	3 119 200	615 000
Received from Public Service Electric and Gas Company	1 013 900	2 953 275	3 076 400	579 000
Excess of deliveries over receipts	111 100	158 125	42 800	36 000
Purchases:				
Economy flow	51 800	329 600	13 600	
Emergency	None	3 725	3 400	1 000
Total purchases	51 800	333 325	17 000	1 000
Excess of net delivered to Public Service Electric and Gas Company of incidental flow - energy over purchases from Public Service Electric and Gas Company	59 300	175 200 *	25 800	35 000

DOLLARS				
Purchases:				
Economy flow	$ 231 44	$ 1 321 96	$ 89 63	
Emergency	265 11	1 269 45	190 74	$ 48 00
Total purchases	$ 496 55	$ 2 491 41	$ 280 37	$ 48 00
Incidental flow:				
Delivered to Public Service Electric and Gas Company	$ 3 037 50	$ 8 400 78	$ 8 421 84	$ 1 660 50
Received from Public Service Electric and Gas Company	2 737 53	7 973 84	8 306 28	1 563 30
Excess of deliveries over receipts	$ 299 97	$ 426 94	$ 115 56	$ 97 20
Excess of purchases from Public Service Electric and Gas Company over net deliveries of incidental energy to that company	$ 196 58	$ 2 064 47	$ 164 81	$ 49 20 *

*Denotes red figure.

Date	*From*	*To*	*KWH*
Apr. 29	7:35 AM	4:00 PM	4000
May 4	7:50 AM	1:20 PM	7600
May 5	8:15 AM	9:00 AM	1400
May 6	7:50 AM	9:00 AM	1000
May 10	8:45 PM	9:50 PM	900
May 12	7:00 AM	12:00 N	5900
May 13	7:00 AM	12:00 N	6300
May 14	7:45 AM	12:00 N	4200
May 15	7:50 AM	9:05 AM	1400
May 25	7:00 AM	12:15 PM	5300
June 2	8:05 AM	10:10 AM	1800
June 4	7:00 AM	10:10 AM	4300
June 7	8:45 PM	10:30 PM	4000
June 9	8:10 AM	7:00 PM	14800
June 11	7:50 AM	5:30 PM	13300
June 12	7:00 AM	6:00 PM	16700
June 16	8:10 AM	7:00 PM	24200
June 17	7:45 AM	5:00 PM	14800
June 21	8:55 PM	10:35 PM	5200
June 23	7:40 AM	5:00 PM	10600
June 25	7:40 AM	5:30 PM	16500
June 26	8:00 AM	9:05 AM	1200
June 28	9:05 PM	10:40 PM	2800
June 29	5:55 PM	6:40 PM	1300
July 1	7:45 AM	4:30 PM	8900
July 3	8:00 AM	5:00 PM	8600
July 4	8:55 PM	11:00 PM	2600
July 5	8:55 PM	11:00 PM	6200
July 6	7:00 AM	5:00 PM	7100
	3:00 PM	7:00 PM	1600
July 7	8:00 AM	7:00 PM	38300
July 8	7:45 AM	4:45 PM	14200
July 9	7:45 AM	8:00 PM	30100
July 12	8:40 PM	11:05 PM	11300
July 14	7:45 AM	10:45 AM	14000

STATEN ISLAND EDISON CORPORATION
PURCHASES OF ECONOMY ENERGY
1937

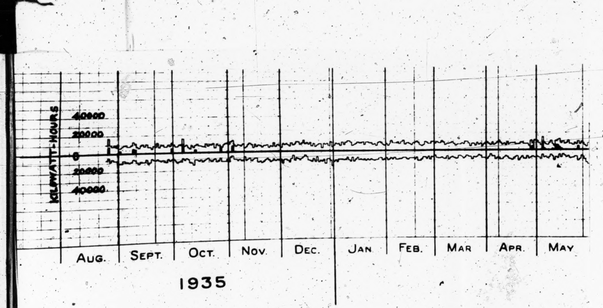
Date	*Hours From*	*To*	*KWH*
April 29	7:30 AM	5:45 PM	9100
April 30	10:00 AM	5:30 PM	4500
			13,600 KWH

STATEN ISLAND EDISON CORPORATION

Monthly summary of purchases of electric energy (other than "Incidental Flow") from Public Service Electric and Gas Company
August 26, 1935 to March 14, 1938

FEDERAL POWER COMMISSION
Docket No. IT-5518
Reg Hearing Ex. No. 4

Month	Number of Transactions	Duration: Total Days	Duration: Total Hours	Duration: Total Minutes	Duration: Average Hours	Duration: Average Minutes	Purchases of electric energy (other than "Incidental Flow"): Kwh Economy Flow	Kwh Emergency	Kwh Total	Amount Economy Flow	Amount Emergency Energy and Demand Charge	Amount Emergency Annual Adjustment	Amount Emergency Total	Amount Total
1935														
August (26th to 31st)	1		7	0			7 900			$ 34 33				
September	5		12	5			19 500			86 34				
October	3		11	15			17 200			79 81				
November	(1			1				None			$ 14 70	$ 250 41		
	(1		4	15			7 200			30 96				
Total	11	1	10	36			51 800	None	51 800	$ 251 44	$ 14 70	$ 250 41	$ 265 11	$ 496 55
Economy Flow	10				3	27								
Emergency	1				0	1								
1936														
February	1		0	2				None			$ 12 00			
March	1		7	15			13 700			$ 54 86				
April	2		11	10			7 500			42 16				
May	9	1	5	15			34 000			157 41				
	(1			4½				383			156 06			
June	(14	3	10	50			131 500			542 55				
July	11	2	23	35			142 900			524 98				
August	3		0	26½				3 288			834 60			
November												$ 144 66		
December	1		0	2				54			22 13			
Total	43	8	13	40			329 600	3 725	333 325	$1 321 96	$ 1 024 79	$ 144 66	$1 169 45	$ 2 491 41
Economy Flow	37				5	28								
Emergency	6				0	6								
1937														
February	1		4	6				3 400			$ 147 20			
April	2		17	45			13 600			$ 89 63				
June	1		0	1				None			16 00			
August	1		0	2				None			10 70			
November												$ 16 84		
Total	5	0	21	54			13 600	3 400	17 000	$ 89 63	$ 173 90	$ 16 84	$ 190 74	$ 280 37
Economy Flow	2				8	52								
Emergency	3				1	23								
1938														
January	1	0	2	35				1 000	1 000		$ 48 00		$ 48 00	$ 48 00
Emergency					2	35								
Total - August 26, 1935 to March 14, 1938	60	10	21	45	4	22	395 000	8 125	403 125	$1 643 03			$1 673 30	$ 3 316 33
Number of days - August 26, 1935 to March 14, 1938		9 30												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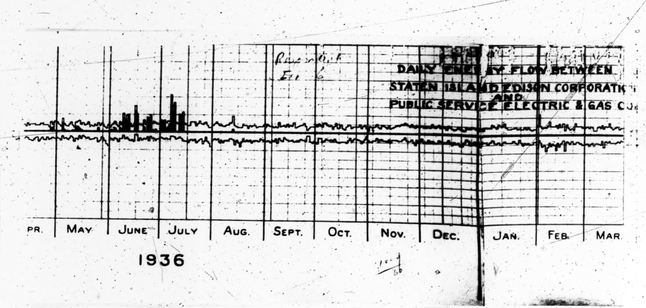
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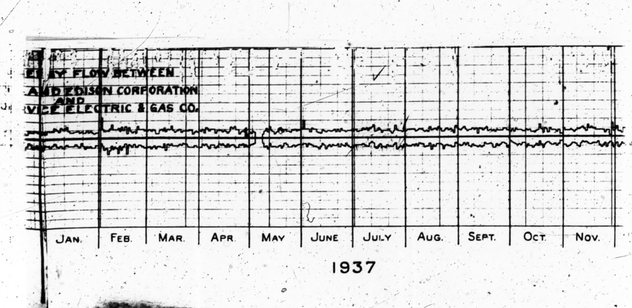
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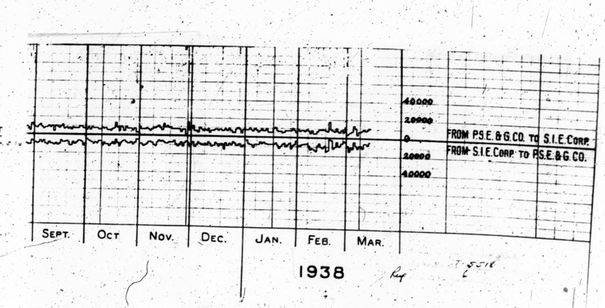
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1938

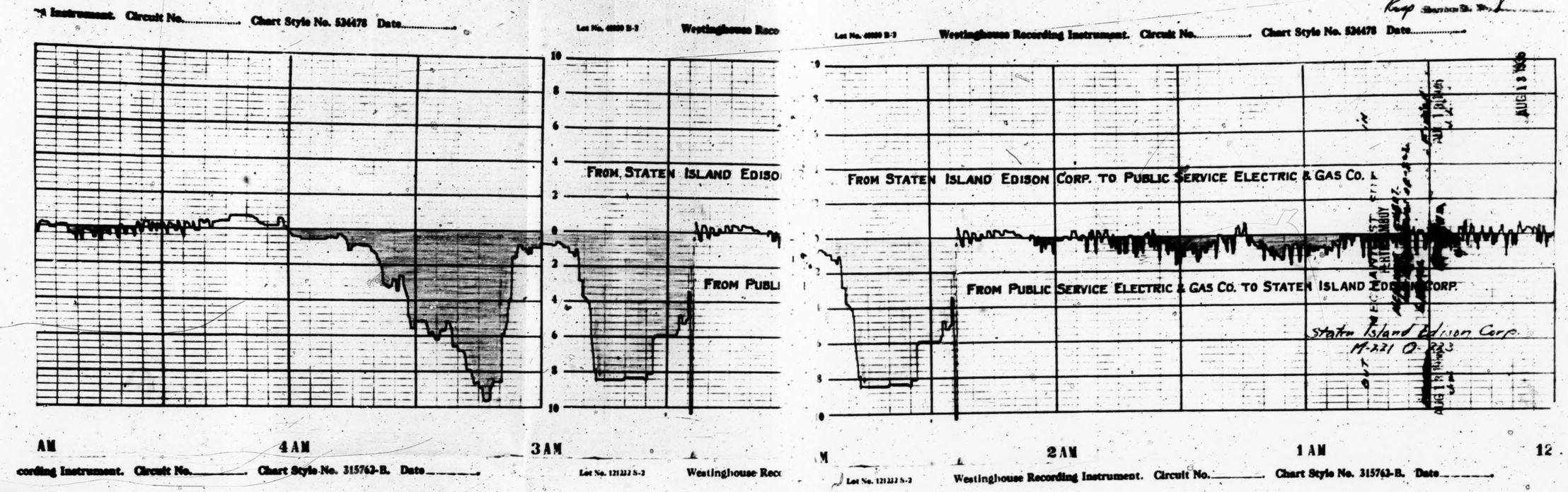
RESPONDENT'S EXHIBIT NO. 7

	Total Net Generated by J. C. P. & L. Co. (A)	S. I. E. Co. Received from P. S. E. & G. Co. (B)	P. S. E. & G. Co. Received from S. I. E. Co. (C)	Net Interchange between P. S. E. & G. Co. and S. I. E. Co. (D)	$\frac{B}{A}$ (%)	$\frac{D}{A}$ (%)
1935						
Aug.	32,656,525	338,200	260,400	+ 77,800	1.04	+ 0.238
Sept.	27,587,100	250,700	260,900	— 12,200	0.91	— 0.044
Oct.	30,871,000	261,200	268,900	— 7,700	0.85	— 0.025
Nov.	28,570,350	231,000	256,200	— 25,200	0.81	— 0.088
Dec.	30,511,350	257,800	294,200	— 36,400	0.85	— 0.119
1936						
Jan.	28,738,050	264,900	297,900	— 33,000	0.92	— 0.115
Feb.	25,280,000	254,400	254,900	— 500	1.00	— 0.002
Mar.	26,318,800	261,700	236,300	+ 25,400	0.99	+ 0.096
Apr.	25,826,400	248,700	252,000	— 3,300	0.95	— 0.013
May	25,580,050	260,900	252,200	+ 8,700	1.02	+ 0.034
June	26,486,400	360,900	234,200	+ 126,700	1.36	+ 0.478
July	30,635,850	406,800	264,300	+ 142,500	1.33	+ 0.468
Aug.	31,867,500	264,700	291,200	— 26,500	0.83	— 0.083
Sept.	30,103,700	234,300	252,100	— 17,800	0.78	— 0.059
Oct.	30,746,600	243,800	246,300	— 2,500	0.79	— 0.008
Nov.	29,240,000	228,300	260,700	— 32,300	0.78	— 0.110

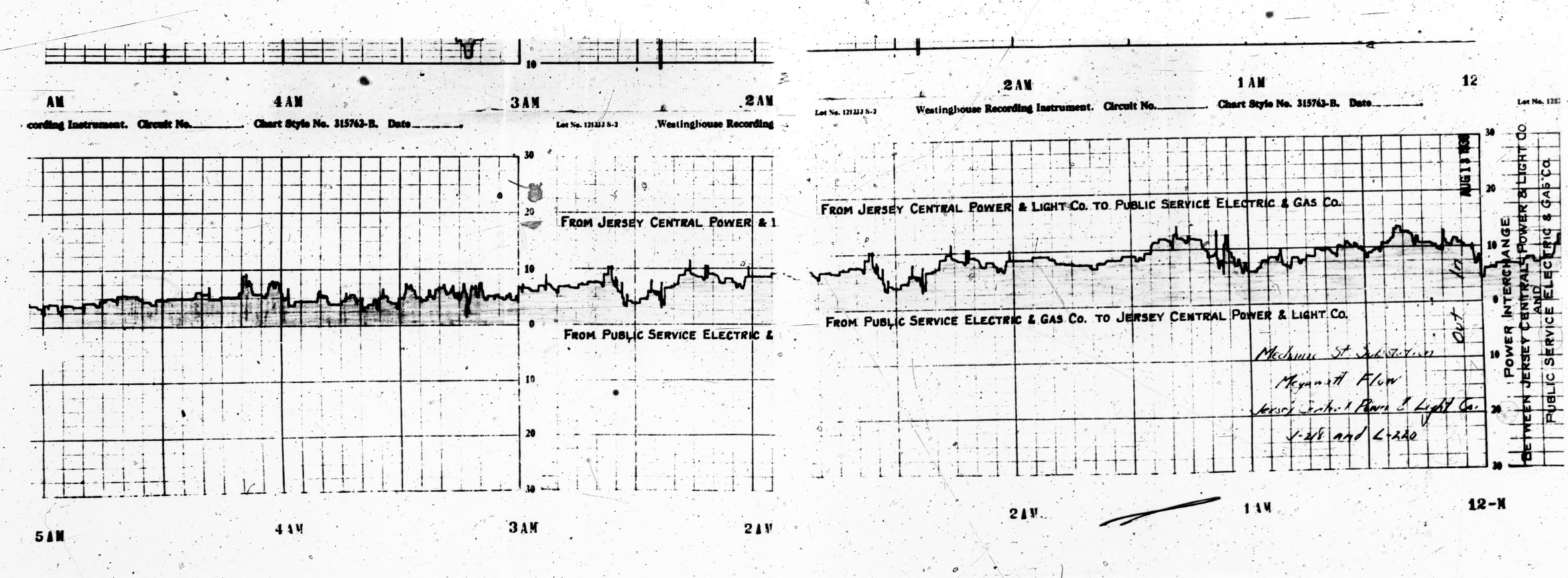
	Total Net Generated by J. C. P. & L. Co. (A)	S. I. E. Co., Received from P. S. E. & G. Co. (B)	P. S. E. & G. Co. Received from S. I. E. Co. (C)	Net Interchange between P. S. E. & G. Co. and S. I. E. Co. (D)	$\frac{B}{A}$ (%)	$\frac{D}{A}$ (%)
Dec. 1937	30,732,800	257,200	269,400	— 12,200	0.69	— 0.040
Jan.	29,129,650	267,800	253,400	+ 14,400	0.92	+ 0.049
Feb.	26,617,000	288,800	287,700	+ 1,100	1.08	+ 0.004
Mar.	29,186,350	264,600	278,500	— 13,900	0.91	— 0.048
Apr.	29,016,500	271,200	247,300	+ 23,900	0.93	+ 0.082
May	29,619,400	218,000	227,300	— 9,300	0.74	— 0.031
June	31,141,600	265,000	248,000	+ 17,000	0.85	+ 0.055
July	33,055,600	273,000	271,000	+ 2,000	0.83	+ 0.006
Aug.	34,206,900	272,000	270,000	+ 2,000	0.79	+ 0.006
Sept.	31,781,600	257,000	263,000	— 6,000	0.81	— 0.019
Oct.	31,898,950	235,000	255,000	— 20,000	0.74	— 0.063
Nov.	28,073,500	247,000	246,000	+ 1,000	0.88	+ 0.003
Dec.	32,099,600	234,000	272,000	— 38,000	0.73	— 0.118
1938						
Jan.	30,069,300	240,000	245,000	— 5,000	0.80	— 0.017
Feb.	26,381,000	229,000	249,000	— 20,000	0.87	— 0.076
Mar.	29,926,100	270,000	256,000	+ 14,000	0.90	+ 0.047

RESPONDENT'S EXHIBIT NO. 8 1078½

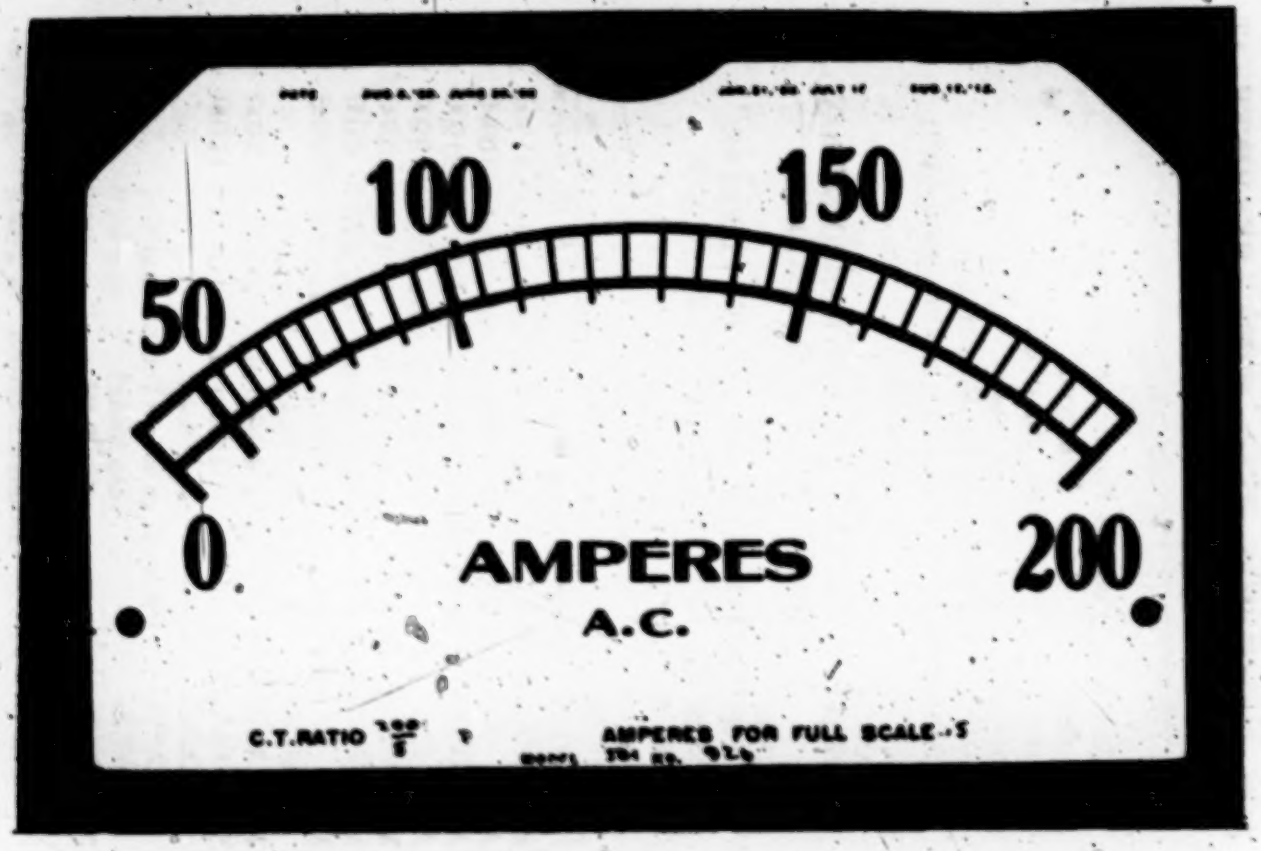
FEDERAL POWER COMMISS.
Docket No. IT-5518
Resp. Statement No. 8



POWER INTERCHANGE
BETWEEN STATEN ISLAND EDISON CORP.
AND
PUBLIC SERVICE ELECTRIC & GAS CO.



AM
4 AM
3 AM
2 AM
cording Instrument. Circuit No.
Chart Style No. 315762-B. Date
Lot No. 121232 S-2
Westinghouse Recording
FROM JERSEY CENTRAL POWER & 1
FROM PUBLIC SERVICE ELECTRIC &
5 AM
4 AM
3 AM
2 AM
2 AM
1 AM
12
Lot No. 121232 S-2
Westinghouse Recording Instrument. Circuit No.
Chart Style No. 315762-B. Date
FROM JERSEY CENTRAL POWER & LIGHT CO. TO PUBLIC SERVICE ELECTRIC & GAS CO.
FROM PUBLIC SERVICE ELECTRIC & GAS CO. TO JERSEY CENTRAL POWER & LIGHT CO.
Out
In
Mechanic St. Substation
Megawatt Flow
Jersey Central Power & Light Co.
J-218 and L-220
POWER INTERCHANGE
BETWEEN JERSEY CENTRAL POWER & LIGHT CO.
AND
PUBLIC SERVICE ELECTRIC & GAS CO.
2 AM
1 AM
12-M


100
150
50
0
AMPERES
200
A.C.
C.T.RATIO
AMPERES FOR FULL SCALE

SUPPLEMENTAL EXHIBITS SUBMITTED PURSUANT TO DIRECTION OF TRIAL EXAMINER AT HEARING CONCLUDED OCTOBER 10, 1938

Federal Power Commission
Received
Oct. 20, 1938

Furnished by Respondent
Directed by Examiner to be furnished (489)
OK LM

STATEN ISLAND EDISON CORPORATION
LIVINGSTON POWER STATION

RUNNING TIME 6000 K. W. TURBINE
JAN. 1ST, 1937 TO SEPT. 26TH, 1938

Date		*Time on*	*Time off*	*K. W. H. Generated*
		1937		
Feb.	27	10:05 a m	3:19 p m	11500
Apr.	3	7:05 a m	1:21 p m	16900
Apr.	5	6:52 a m	2:50 p m	21600
Apr.	25	7:36 p m	10:54 p m	9800
May	5	4:50 p m	9:55 p m	5500
May	6	4:58 p m	10:27 p m	6100
May	7	5:10 p m	9:56 p m	5800
		1938		
June	10	3:08 p m	4:54 p m	3400
Sept.	1	11:53 a m	4:36 p m	11700

Federal power Commission
Docketed
10-20-38
HLS
Docket Section
Secretary's Office

RUNNING TIME 10000 K. W. TURBINE JAN. 1ST, 1937 TO SEPT. 26TH, 1938

Date	*Time on*	*Time off*	*K. W. H. Generated*
		1937	
Feb. 1	6:20 a m	4:11 p m	33300
Mar. 6	9:08 a m	11:03 a m	3600
Mar. 22	6:30 a m	4:55 p m	28400
Mar. 26	6:28 a m	6:15 p m	34000
Apr. 19	6:47 a m	4:45 p m	25100
Apr. 26	6:56 a m	11:35 p m	54600
Apr. 27	6:46 a m	11:30 p m	50200
Apr. 28	6:43 a m	11:20 p m	41200
Apr. 29	5:40 p m	11:40 p m	24400
Apr. 30	6:47 a m	9:57 a m	
Apr. 30	5:30 p m	11:34 p m	26400
May 1	6:20 p m	11:30 p m	16400
May 2	7:30 p m	10:44 p m	8800
May 3	7:00 a m	11:21 p m	40200
May 4	6:57 a m	Still running	48000
May 5	Still running	Still running	63000
May 6	Still running	Still running	64100
May 7	Still running	Still running	58000
May 8	Still running	3:07 a m	
May 8	3:33 a m	Still running	59400
May 9	Still running	1:04 a m	
May 9	7:48 p m	10:59 p m	11400
May 10	6:50 a m	Still running	43200
May 11	Still running	1:16 a m	
May 11	6:50 a m	11:25 p m	49600
May 12	6:53 a m	6:28 p m	26700
May 13	6:51 a m	4:23 p m	19600
May 24	7:07 a m	5:33 p m	22600
June 7	7:03 a m	11:43 p m	48300
June 8	6:26 a m	11:35 p m	48700
June 9	6:50 a m	11:40 p m	47000
June 10	6:45 a m	11:39 p m	56300
June 11	6:46 a m	11:30 p m	47900
June 12	7:14 p m	11:39 p m	15700

Date	*Time on*	*Time off*	*K. W. H. Generated*
June 13	8:13 p m	11:27 p m	8100
June 14	6:58 a m	Still running	50800
June 15	Still running	12:20 a m	
June 15	6:58 a m	11:39 p m	49600
June 16	6:58 a m	11:42 p m	47800
June 17	7:04 a m	11:39 p m	51000
June 18	7:04 a m	11:38 p m	48100
June 19	6:35 p m	11:27 p m	17700
June 20	8:15 p m	10:54 p m	6100
June 21	7:13 a m	Still running	54700
June 22	Still running	12:57 a m	
June 22	7:02 a m	Still running	49800
June 23	Still running	12:22 a m	
June 23	6:52 a m	11:34 p m	48900
June 24	6:53 a m	2:12 p m	17400
July 2	6:48 a m	6:06 p m	28300
Aug 3	1:07 p m	2:19 p m	3800
Aug. 5	7:03 a m	5:37 p m	26700
Aug. 28	7:01 a m	5:23 p m	25600
Sept. 3	7:05 a m	6:35 p m	29900
Sept. 23	6:41 a m	6:35 p m	31900
Oct. 12	6:48 a m	5:33 p m	27200
Nov. 27	7:01 a m	4:34 p m	23700
		1938	
Jan. 14	6:12 a m	3:18 p m	26300
Jan. 17	6:10 a m	3:07 p m	35500
Jan. 26	6:08 a m	3:44 p m	26200
Feb. 4	6:09 a m	5:13 p m	27100
Feb 14	6:29 a m	5:23 p m	25900
Mar. 8	6:30 a m	5:40 p m	28000
Mar. 27	6:10 p m	10:49 p m	12400
Mar. 28	6:29 a m	5:45 p m	28700
Apr. 25	5:42 p m	11:30 p m	24500
Apr. 26	5:09 p m	11:29 p m	27800
Apr. 27	5:27 p m	11:27 p m	22000
Apr. 28	5:32 p m	11:26 p m	21300
Apr. 29	2:00 p m	11:20 p m	58700

Date	*Time on*	*Time off*	*K. W. H. Generated*
Apr. 30	6:33 p m	11:21 p m	18600
May 1	7:46 p m	10:53 p m	7700
May 2	5:32 p m	11:36 p m	25500
May 3	4:45 p m	11:33 p m	29000
May 4	5:28 p m	11:38 p m	29700
May 5	5:29 p m	11:27 p m	23300
May 6	12:57 p m	11:38 p m	71800
May 7	7:27 p m	11:19 p m	15300
May 8	7:27 p m	10:47 p m	8400
May 9	5:00 p m	11:21 p m	29800
May 10	4:08 a m	11:22 p m	62000
May 15	7:49 p m	10:52 p m	7400
May 24	5:20 p m	11:15 p m	35300
June 3	7:14 a m	5:17 p m	24500
June 27	5:03 p m	11:31 p m	23300
June 28	5:05 p m	11:30 p m	23100
June 29	5:10 p m	11:32 p m	19600
June 30	5:13 p m	11:34 p m	19900
July 1	5:29 p m	11:35 p m	21100
July 2	8:16 p m	11:35 p m	11300
July 3	8:19 p m	11:19 p m	8900
July 4	7:27 p m	11:24 p m	12200
July 5	5:28 p m	11:35 p m	18700
July 6	5:27 p m	11:30 p m	25200
July 7	5:28 p m	11:34 p m	18100
July 8	5:03 p m	11:31 p m	20900
July 9	5:26 p m	11:35 p m	26200
July 10	8:02 p m	11:29 p m	11900
July 11	7:37 a m	Still running	80600
July 12	Still running	12:31 a m	
July 12	2:28 p m	11:37 p m	33100
July 13	5:27 p m	11:29 p m	18500
July 14	9:57 a m	11:35 p m	51100
July 15	7:50 a m	11:34 p m	59300
July 16	7:06 p m	11:32 p m	18700
July 17	4:06 p m	11:26 p m	29100
July 18	10:31 a m	11:27 p m	41700

Date	*Time on*	*Time off*	*K. W. H. Generated*
July 19	9:55 a m	3:55 p m	14900
July 29	7:16 p m	Still running	18800
July 30	Still running	12:18 a m	
July 30	7:23 p m	11:42 p m	17200
July 31	7:34 p m	11:33 p m	12200
Aug 1	7:27 a m	11:30 p m	50000
Aug. 2	7:05 a m	4:20 p m	23600
Aug. 26	6:44 a m	12:25 p m	13300
Sept. 7	11:24 a m	4:20 p m	19200

STATEN ISLAND EDISON CORPORATION
EMERGENCY POWER PURCHASED FROM PUBLIC SERVICE ELECTRIC & GAS CO.
MAR. 14TH TO SEPT. 26TH, 1938, INCL.

OK LM

Federal Power Commission
Received
Oct. 20, 1938

Federal Power Commission
Docketed
10-20-38
H L S
Docket Section
Secretary's Office

Hours

Date	*From*	*To*	*KWH*
June 18	8:46 a m	8:48 a m	0
July 20	5:29 a m	5:32 a m	0
July 29	6:49 p m	6:51 p m	
July 29	7:04 p m	7:17 p m	1000
Sept. 13	6:37 a m	6:39 a m	0

(Signed) James H. Lytle L. S.

State of New York,
County of New York, ss:

James H. Lytle being duly sworn deposes and says:

That he has caused the foregoing exhibits to be compiled from books and records of the Staten Island Edison Corporation

That the facts therein contained are true and accurate as appear from said books and records.

James H. Lytle

Sworn to before me October 19th, 1938.

Robert M. Weston,
(Seal) Notary Public
New York Co. Clerk's No. 315, Reg. No. 9W398

Term expires March 30, 1939.

STATEN ISLAND EDISON CORPORATION
ECONOMY FLOW POWER PURCHASED FROM PUBLIC SERVICE ELECTRIC & GAS CO.
MAR. 14TH TO SEPT. 26TH, 1938, INCL.

Furnished by Respondent on Oct. 19, 1938
Supplements Respondent's Exh. No. 3
Rec'd as evidence for Respondent by direction of Examiner
(485-487)

Federal Power Commission
Received
Oct. 20, 1938

OK LM

Federal Power Commission
10-20-38
H L S
Docket Section
Secretary's Office

	Hours		
Date	*From*	*To*	*KWH*
Apr. 11	7:00 a m	5:30 p m	9000
Apr. 12	7:00 a m	5:30 p m	5000
Apr. 13	7:00 a m	5:30 p m	4000
Apr. 15	7:00 a m	5:15 p m	2000
Apr. 18	7:00 a m	5:15 p m	4000
Apr. 19	9:15 a m	5:30 p m	5000
Apr. 20	7:45 a m	5:30 p m	4000
Apr. 21	7:45 a m	5:15 p m	4000
Apr. 22	7:30 a m	5:30 p m	3000
Apr. 25	7:30 a m	5:30 p m	3000
Apr. 26	7:30 a m	5:15 p m	6000
Apr. 27	7:30 a m	5:30 p m	3000
Apr. 28	7:30 a m	5:30 p m	2000
Apr. 29	7:30 a m	2:15 p m	2000
May 2	7:30 a m	5:45 p m	6000
May 3	7:30 a m	5:00 p m	8000
May 4	7:30 a m	5:30 p m	8000
May 5	7:30 a m	5:30 p m	4000
May 6	7:30 a m	1:00 p m	4000
May 9	7:30 a m	5:15 p m	13000
May 11	7:30 a m	5:30 p m	12000
May 12	7:30 a m	5:30 p m	11000
May 16	7:30 a m	5:30 p m	8000
May 17	7:30 a m	5:30 p m	7000
May 18	7:30 a m	5:30 p m	10000
May 19	7:30 a m	5:30 p m	10000
May 20	7:30 a m	2:30 p m	6000
May 23	7:30 a m	5:30 p m	11000
May 24	7:30 a m	5:30 p m	18000
May 25	7:30 a m	5:30 p m	15000
May 26	7:30 a m	5:30 p m	14000
May 31	7:30 a m	5:30 p m	14000
June 1	7:30 a m	5:30 p m	16000
June 2	7:30 a m	5:45 p m	16000
June 3	8:30 p m	10:30 p m	4000
June 6	7:30 a m	5:30 p m	20000

Date	Hours		KWH
	From	*To*	
June 6	8:30 p m	10:30 p m	4000
June 7	7:30 a m	1:30 p m	17000
June 7	8:30 p m	10:30 p m	3000
June 8	8:30 p m	10:30 p m	4000
June 9	7:30 a m	5:30 p m	11000
June 9	8:30 p m	10:30 p m	4000
June 10	7:30 a m	5:30 p m	13000
June 10	8:30 p m	10:30 p m	3000
June 11	8:30 p m	10:30 p m	3000
June 13	7:30 a m	5:30 p m	16000
June 13	8:30 p m	10:30 p m	4000
June 14	7:30 a m	3:45 p m	14000
June 14	8:30 p m	10:30 p m	3000
June 15	7:30 a m	5:30 p m	17000
June 15	8:30 p m	10:30 p m	3000
June 16	7:30 a m	5:30 p m	17000
June 16	8:30 p m	10:30 p m	5000
June 17	8:30 a m	5:30 p m	13000
June 17	8:30 p m	10:30 p m	4000
June 18	8:30 p m	10:30 p m	3000
June 20	7:30 a m	5:30 p m	17000
June 20	8:30 p m	10:30 p m	4000
June 21	7:30 a m	5:30 p m	26000
June 21	8:30 p m	10:30 p m	3000
June 22	7:30 a m	5:30 p m	25000
June 22	8:30 p m	10:30 p m	4000
June 23	7:30 a m	3:15 p m	18000
June 23	8:45 p m	10:30 p m	4000
June 24	7:30 a m	2:45 p m	13000
June 24	8:45 p m	10:30 p m	2000
June 25	8:45 p m	10:30 p m	3000
June 27	7:30 a m	5:30 p m	28000
June 27	8:30 p m	10:30 p m	4000
June 28	7:30 a m	5:30 p m	27000
June 28	8:30 p m	10:30 p m	5000
June 29	7:30 a m	5:15 p m	15000

Date	Hours From	Hours To	KWH
June 29	8:30 p m	10:30 p m	2000
June 30	7:30 a m	5:15 p m	24000
June 30	8:30 p m	10:30 p m	4000
July 1	7:30 a m	5:30 p m	17000
July 1	8:30 p m	10:30 p m	4000
July 2	8:30 p m	10:30 p m	3000
July 5	7:30 a m	5:30 p m	7000
July 5	8:30 p m	10:30 p m	2000
July 6	7:30 a m	5:30 p m	16000
July 6	8:30 p m	10:30 p m	2000
July 7	7:30 a m	5:30 p m	10000
July 7	8:30 p m	10:30 p m	4000
July 8	7:30 a m	5:15 p m	12000
July 8	8:30 p m	10:30 p m	3000
July 9	8:30 p m	10:30 p m	6000
July 11	9:00 p m	10:30 p m	3000
July 12	7:30 a m	2:45 p m	20000
July 12	8:30 p m	10:30 p m	4000
July 13	7:30 a m	5:30 p m	31000
July 13	8:30 p m	10:30 p m	3000
July 14	7:30 a m	10:15 a m	10000
July 14	8:30 p m	10:30 p m	4000
July 15	7:30 a m	8:30 a m	2000
July 15	8:30 p m	10:30 p m	4000
July 16	8:30 p m	10:30 p m	3000
July 18	7:30 a m	10:45 a m	10000
July 18	8:30 p m	10:30 p m	5000
July 19	7:30 a m	10:15 a m	9000
July 19	8:30 p m	10:30 p m	4000
July 20	8:30 p m	10:30 p m	3000
July 21	8:30 p m	10:30 p m	4000
July 22	8:30 p m	10:30 p m	2000
July 23	8:30 p m	10:30 p m	4000
July 25	8:30 p m	10:30 p m	5000
July 26	8:30 p m	10:30 p m	5000
July 27	8:30 p m	10:30 p m	4000

Date	Hours From	To	KWH
July 28	8:30 p m	10:30 p m	4000
July 29	8:30 p m	10:30 p m	5000
July 30	8:30 p m	10:30 p m	3000
Aug. 1	8:30 p m	10:30 p m	4000
Aug. 2	8:30 p m	10:30 p m	4000
Aug. 3	8:30 p m	10:30 p m	3000
Aug. 4	8:30 p m	10:30 p m	4000
Aug. 5	7:30 a m	11:15 a m	13000
Aug. 5	8:30 p m	10:30 p m	6000
Aug. 6	8:30 p m	10:30 p m	5000
Aug. 8	7:30 a m	10:00 a m	6000
Aug. 8	8:30 p m	10:30 p m	5000
Aug. 9	8:30 p m	10:30 p m	4000
Aug. 10	8:30 p m	10:30 p m	3000
Aug. 11	8:30 p m	10:30 p m	3000
Aug. 12	8:30 p m	10:30 p m	2000
Aug. 13	8:30 p m	10:30 p m	3000
Aug. 15	8:30 p m	10:30 p m	2000
Aug. 16	7:30 a m	4:15 p m	28000
Aug. 16	8:30 p m	10:30 p m	5000
Aug. 17	7:30 a m	3:30 p m	21000
Aug. 17	8:00 p m	10:30 p m	3000
Aug. 18	7:30 a m	3:15 p m	17000
Aug. 18	8:00 p m	10:30 p m	4000
Aug. 19	7:30 a m	4:30 p m	16000
Aug. 19	8:00 p m	10:30 p m	3000
Aug. 20	8:00 p m	10:30 p m	2000
Aug. 22	7:30 a m	3:30 p m	22000
Aug. 22	8:00 p m	10:30 p m	6000
Aug. 23	7:00 a m	5:30 p m	35000
Aug. 23	8:00 p m	10:30 p m	6000
Aug. 24	8:00 p m	10:30 p m	4000
Aug. 25	8:00 p m	10:30 p m	6000
Aug. 26	1:30 p m	5:30 p m	7000
Aug. 26	8:00 p m	10:30 p m	2000
Aug. 27	8:00 p m	10:30 p m	4000

Date	Hours From	Hours To	KWH
Aug. 29	7:00 a m	5:30 p m	24000
Aug. 29	8:00 p m	10:30 p m	8000
Aug. 30	7:00 a m	5:30 p m	21000
Aug. 30	7:30 p m	10:30 p m	8000
Aug. 31	7:00 a m	5:15 p m	30000
Aug. 31	7:30 p m	10:30 p m	10000
Sept. 1	7:00 a m	12:00 n	16000
Sept. 1	7:30 p m	10:30 p m	9000
Sept. 2	7:00 a m	5:15 p m	10000
Sept. 2	7:30 p m	10:30 p m	9000
Sept. 3	7:30 p m	10:30 p m	6000
Sept. 6	7:00 p m	5:30 p m	21000
Sept. 6	7:15 p m	10:30 p m	11000
Sept. 7	7:00 a m	11:30 a m	14000
Sept. 7	7:15 p m	10:30 p m	13000
Sept. 8	7:15 p m	10:30 p m	9000
Sept. 9	7:15 p m	10:30 p m	11000
Sept. 10	7:15 p m	10:15 p m	12000
Sept. 12	7:00 a m	5:00 p m	15000
Sept. 12	7:15 p m	10:30 p m	11000
Sept. 13	7:15 p m	10:30 p m	13000
Sept. 14	7:00 a m	4:30 p m	21000
Sept. 14	7:15 p m	10:30 p m	12000
Sept. 15	7:00 p m	10:30 p m	14000
Sept. 16	7:00 a m	9:15 a m	6000
Sept. 16	7:00 p m	10:30 p m	13000
Sept. 17	7:00 p m	10:30 p m	12000
Sept. 19	7:00 p m	10:30 p m	14000
Sept. 20	7:00 p m	10:30 p m	19000
Sept. 21	7:00 p m	10:30 p m	8000
Sept. 22	6:45 p m	10:30 p m	16000
Sept. 23	6:45 p m	10:30 p m	14000
Sept. 24	6:45 p m	10:30 p m	17000
Sept. 26	7:00 a m	4:30 p m	22000

(Written in pencil, appearing in upper right-hand corner):
OK
LM
#5 Supplement furnished as directed by Examiner (p 6 20)
(Stamped in upper left-hand corner):
Federal Power Commission
Received
Oct. 20, 1938

STATEN ISLAND EDISON CORPORATION

SUMMARY OF TRANSACTIONS WITH PUBLIC SERVICE ELECTRIC AND GAS COMPANY MARCH 15, 1938 TO SEPTEMBER 27, 1938

	K. W. H.	*Amount*
Incidental flow:		
Received from Public Service Electric and Gas Company	1,432,000	$ 3,866.40
Delivered to Public Service Electric and Gas Company	1,335,000	3,604.50
Excess of receipts over deliveries	97,000	$ 261.90
Purchases:		
Economy flow	1,665,000	$ 6,648.75
Emergency	1,000	514.30
Total—Purchases	1,666,000	$ 7,163.05
Excess of receipts of incidental energy and purchases over deliveries of incidental energy	1,763,000	$ 7,424.95

(Stamped):
Federal Power Commission
Docketed
10-20-38
HJS
Docket Section
Secretary's Office

State of New York,
County of New York, ss.:

William F. Morris being duly sworn deposes and says:

That he prepared the above statement from information obtained from the records of Staten Island Edison Corporation, and that the facts contained in such statement truly and correctly reflect the information appearing on such records.

Wm. F. Morris.

Sworn to before me this 19th day of October, 1938.

Henry C. Johnston,
Notary Public.

Henry C. Johnston,
Notary Public, Kings County
King's Co. Clerk's No. 106, Register No. 9038, Certificates Filed in N. Y. Clerk's No. 47, Register's No. 9-J-50, Commission expires March 30, 1939.

(Seal)

Supplement

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#4 Supplement
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Docket

STATEN ISLAND EDISON CORPORATION

Monthly Summary of Purchases of Electric Energy
(Other than "Incidental Flow") from Public Service
Electric and Gas Company
March 15, 1938 to September 27, 1938

	Number of Transactions	Duration Total Days	Total Hours	Total Minutes	Average Hours	Average Minutes	Kilowatt Hours Economy	Emergency	Total	Economy
rch (15 to 31)							None	None		
ril	14	5	16		9	43	56,000			$ 432.15
y	18	7	3	15	9	31	179,000			869.21
e	43	9	18	30	5	27	445,000			1,749.33
e	1			2		2				
	36	5	6	15	3	30	237,000	None		
y	3			18		6				879.45
gust	39	6	11		4		359,000	1,000		
tember	29	5	18	30	4	46	389,000			1,314.14
tember	1			2		2				1,404.47
Total	184	40	1	52			1,165,000	None 1,000	1,166,000	$6,648.75
Economy	179	40	1	30	5	22				
Emergency	5			22		4.4				

State of New York,
County of New York, ss:
William F. Morris being duly sworn deposes and says:
That he prepared the above statement from information obtained from the records of Staten Isla
facts contained in such statement truly and correctly reflect the information appearing on such re

Wm. F. Morr

Sworn to before me this 19th
Henry C. John
Notary Publ
King's Co. (
Certificates
Register's N
Commission

(Seal)

[fol. 1094] UNITED STATES CIRCUIT COURT OF APPEALS, THIRD CIRCUIT

In the Matter of the Application of JERSEY CENTRAL POWER & LIGHT COMPANY for a Review of an Order of the Federal Power Commission Pursuant to Section 313 of the Federal Power Act

PETITION FOR REVIEW

The petition of Jersey Central Power & Light Company respectfully alleges:

1. Petitioner is a corporation duly organized and existing under the laws of the State of New Jersey with its principal office in Asbury Park, Monmouth County, New Jersey (within the jurisdiction of this Court), and is engaged in the business of the transmission and sale of electricity and gas solely within the State of New Jersey. Petitioner seeks a review of an order of the Federal Power Commission (hereinafter called the "Commission") dated July 18, 1939 and entered in a proceeding before it wherein your petitioner and New Jersey Power & Light Company were respondents. Pursuant to statute an application for rehearing of said order entered by the Federal Power Commission was filed but was denied by that Commission by order entered September 15, 1939. Jurisdiction of this court is invoked under the provisions of Section 313 of the Federal Power Act (16 U. S. C. A., Section 825-L).

2. On June 7, 1938 the Commission entered an order reciting that it appeared to the Commission that your petitioner and New Jersey Power & Light Company were public utilities subject to the jurisdiction of the Commission and requiring the New Jersey Power & Light Company to submit [fol. 1095] certain information concerning the acquisition of 341,350 shares of the common stock of your petitioner alleged to be in violation of Section 203(a) of the Federal Power Act, all of which is more fully set forth in the copy of said order attached hereto and marked "Exhibit A."

3. On July 5, 1938 by further order of the Commission your petitioner and New Jersey Power & Light Company were made parties to an investigation by the said Commis-

sion to determine whether or not the transaction relating to the acquisition of said shares of the common stock of your petitioner was within the terms and provisions of the Federal Power Act aforesaid, and a public hearing thereon was duly fixed by the terms of said order, all of which is more particularly set forth in a copy of said order attached hereto and marked "Exhibit B."

4. Your petitioner being in doubt as to its status in said proceeding duly filed a petition to intervene therein as a party thereto, and denied that it was a public utility within the terms and provisions of the Federal Power Act, and that the Commission had any jurisdiction over your petitioner under and by virtue of the terms of said act. Said petition for intervention was duly granted, and pursuant to the order of the Commission dated July 5, 1938 hearings were held at which testimony and exhibits were introduced by the Commission and the other parties to said order.

5. On July 18, 1939, the Commission entered and served upon your petitioner a so-called "Determination by the Commission" (a copy of which is attached hereto and marked "Exhibit C"), which purports to finally determine that your petitioner owns and operates facilities for the transmission and/or sale at wholesale of electric energy in interstate commerce, and that your petitioner is a "public [fol. 1096] utility" within the meaning of the term as contained in the Federal Power Act. The said order purports to finally determine the status of your petitioner as a corporation subject to the general jurisdiction of the Federal Power Commission and by necessary implication requires your petitioner to comply with all the laws, rules and regulations applicable to persons determined to be within that status. The said "Determination" and each of the said findings of fact therein contained is erroneous, arbitrary and capricious, and made without substantial evidence to support it in the record of the proceedings had herein before the Federal Power Commission as to the following findings of fact:

Finding No. 1:

1. "* * * such transmission facilities of the above named companies are utilized for the transmission of elec-

tric energy in both directions between Mechanic Street substation and the substation of Jersey Central * * *"

2. "* * * such transmission facilities at Mechanic Street substation are connected directly and at all times with a common bus bar in the Mechanic Street substation * * *"

3. "* * * normally electric energy passes over such transmission facilities daily in both directions between the points specified * * *"

Finding No. 2:

1. "* * * that the transmission facilities described provide a direct and interconnected line for the flow of electric energy between the substation of Jersey Central Power & Light Company located adjacent to its generating plant in South Amboy and Atlantic substation of Staten Island Edison Corporation on Staten Island in the State of New York, via Mechanic Street substation, * * *"

2. "* * * such transmission facilities of Public Service Electric and Gas Company and Staten Island Edison Corporation are attached to the same common bus bar at Mechanic Street substation to which is Attached the transmission facilities of (Jersey Central and Public Service) * * *"

3. "* * * electric energy transmitted over * * * (Jersey Central facilities) to Atlantic substation, on Staten Island, in the State of New York, via Mechanic Street sub-
[fol. 1097] station, is generated in the State of New Jersey and consumed in the State of New York; that electric energy transmitted from Atlantic Street substation to * * * (Jersey Central facilities) via Mechanic Street substation, is generated in the State of New York and consumed in the State of New Jersey. * * *"

Finding No. 3:

"The transmission facilities owned and operated by Jersey Central Power & Light Company extending from its substation adjacent to its generating plant in South Amboy, New Jersey, to the south bank of the Raritan River in said State are transmission facilities utilized for the transmission of electric energy in interstate commerce, and there-

fore, Jersey Central Power & Light Company is a 'public utility' within the meaning of the Federal Power Act;"

Finding No. 5:

"The acquisition of 341,350 shares of the common capital stock of Jersey Central Power & Light Company by New Jersey Power & Light Company was the acquisition by a public utility of the securities of another public utility within the meaning of Section 203(a) of the Federal Power Act; * * *"

to the extent that said finding refers to your petitioner as "another public utility within the meaning of Section 203(a) of the Federal Power Act."

6. Petitioner further shows that the evidence before the Commission shows that its facilities for the transmission of electric energy and otherwise are situated wholly within the State of New Jersey and do not extend to nor connect with electric transmission facilities at the state line. That the facilities of your petitioner are used wholly and exclusively for the transmission and distribution of electric energy in intra-state commerce and are not used for the transmission of electric energy in interstate commerce or for the sale of such energy at wholesale in interstate commerce. In making and entering the aforesaid "Determination" despite the substantial evidence in the record which shows that your petitioner is not a "public utility" as that term is defined in the Federal Power Act, the Federal Power [fol. 1098] Commission has exceeded and unlawfully construed its jurisdiction and powers, as prescribed and limited in the terms of said Act. The aforesaid "Determination" is illegal, arbitrary, null and void because it is made in violation of the expressed terms of the Federal Power Act and of the established rules of statutory construction applicable to the terms of the Federal Power Act. Petitioner is not a "public utility" as defined by the Federal Power Act, and is not therefore subject to the jurisdiction of the Federal Power Commission.

7. Pursuant to an order of the Board of Public Utility Commissioners of the State of New Jersey dated March 11, 1938, 341,350 shares of the common stock of your petitioner was authorized to be acquired by the New Jersey Power & Light Company, and the transfer of said shares

on the books of your petitioner was duly authorized and approved pursuant to the terms and conditions set forth in said order. Petitioner in accordance therewith has caused the transfer of the ownership of said shares to be made on its books in the name of the New Jersey Power & Light Company, by reason whereof, pursuant to the laws of the state of New Jersey the said New Jersey Power & Light Company possesses all the rights of a stockholder of record to the extent of about 32% of petitioner's outstanding voting stock. Pursuant to said determination of the Commission the acquisition of such securities without first having secured the approval of the Commission is declared to be in violation of the provisions of Section 203(a) of the Federal Power Act. Your petitioner is, by reason of the said "Determination" in doubt as to its legal rights, duties, powers, and obligations with respect to the keeping of your petitioner's stock books and books of account in that the right of New Jersey Power & Light Company as a regis-
[fol. 1099] tered stockholder to vote its stock of your petitioner, and the right of your petitioner to pay dividends to New Jersey Power & Light Company may be challenged at some future time, and it may be determined that voting rights and/or dividends given over to such registered stockholder were rightfully owned and to be paid by your petitioner to other and different parties. By reason of the uncertain status of New Jersey Power & Light Company as a stockholder of your petitioner, which necessarily results from the aforesaid "Determination," your petitioner is aggrieved and injured in the conduct of its business and affairs.

8. Petitioner is aggrieved by the said findings and determinations of the Commission in that by reason thereof it is made subject to the general jurisdiction of the Commission and is thereby amenable to all the obligations of the Federal Power Act and orders, rules and regulations of the Commission heretofore adopted or promulgated affecting public utilities subject to the jurisdiction of the Commission, and also orders requiring the maintenance of prescribed system of accounts, depreciation requirements and continuing property records. Petitioner is also subject to summary and other investigations by the Commission and is required to prepare and file pursuant to Commission requirements various data and other information

of its operations and activities, and as well is subject to the regulation of its rates and the continued maintenance of its facilities found to be utilized in interstate transmission. By the terms of the Federal Power Act petitioner is limited in its free choice of directors and officers who may be also directors and officers of trust companies, banking associa- [fol. 1100] tions and banks, or other public utilities, and is subject to such general and other rules, regulations and orders as the Federal Power Act may provide or the Commission may from time to time promulgate. Petitioner is also subject to suits for injunction and restraint by the Commission and as well is also subject to fines, penalties and forfeitures in large sums of money in failing to comply with the terms of the Federal Power Act or any order or regulation of the Commission pursuant thereto.

9. Petitioner further alleges that the "Determination by the Commission" is in violation of your petitioner's constitutional rights in that the authority to regulate the transmission of electric energy and the use of the facilities related thereto, together with the other business and affairs of the petitioner, has not been delegated by Congress to the United States nor to the Federal Power Commission pursuant to the terms of Article I, Section 8, subdivision 3 of the United States Constitution, but has been specifically reserved to the State of New Jersey by the Tenth Amendment of said Constitution. Wherefore, your petitioner is deprived of its right to be free from federal regulation in the conduct of its business and affairs, and the determination of the status of your petitioner as a "public utility" is without lawful authority and deprives your petitioner of the right to carry on its business free of such regulation and jurisdiction without due process of law.

Wherefore, your petitioner respectfully prays that your Honorable Court review the "Determination by the Commission" issued July 18, 1939, against your petitioner and that said "Determination by the Commission" and its findings and rulings contained therein may be set aside in its entirety and made null and void in its effect upon your [fol. 1101] petitioner, and that your petitioner may have such other and further relief as may be just and proper in the premises.

Jersey Central Power & Light Company, by T. R. Crumley, President. Autenrieth & Wortendyke, Attorneys for and of Counsel with Petitioner.

[fol. 1102] STATE OF NEW JERSEY,
County of Essex, ss:

Thomas R. Crumley, of full age, being duly sworn according to law upon his oath deposes and says:

I am President of Jersey Central Power & Light Company, the petitioner named in the foregoing petition. I have read the same and the facts set forth therein are true to the best of my knowledge, information and belief.

Thomas R. Crumley.

Subscribed and sworn to before me this 10th day of November, 1939. Charles Silber, a Master in Chancery of New Jersey.

Note: Omitted from this print. Exhibit "A" being order to show cause issued by Federal Power Commission. Printed elsewhere in record Vol. 1, page 1. Exhibit "B" being order instituting investigation. Printed elsewhere in record Vol. 1, page 9. Exhibit "C" being Determination by the Commission. Printed elsewhere in record Vol. II, page 936.

[fol. 1103] [Stamp:] Received & Filed Nov. 10, 1939. William P. Rowland, Clerk

IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

In the Matter of the Application of NEW JERSEY POWER & LIGHT COMPANY, Pursuant to Section 313 of the Federal Power Act, for the Review of an Order of the Federal Power Commission

PETITION FOR REVIEW

To the Honorables, the Judges of the United States Circuit Court of Appeals for the Third Circuit:

The petition of New Jersey Power & Light Company respectfully alleges:

1. Petitioner is a corporation duly organized and existing under the laws of the State of New Jersey, with its principal

office at Dover, New Jersey, within the territorial jurisdiction of this Court; and is engaged in the business of the transmission and sale of electric energy within the State, and at the State line, of New Jersey. Petitioner is a "person" and a "public utility" as defined in the Federal Power Act. (16 U. S. C. A. Sec. 791 *et seq.*). Petitioner seeks a review of an Order of the Federal Power Commission (hereafter called the "Commission"), entered on July 18, 1939, after the termination of a proceeding before it wherein your Petitioner was the respondent. An application for the rehearing of such Order was duly made, and was denied [fol. 1104] by Order of the Commission entered September 15, 1939. Jurisdiction of this Court is invoked under the provisions of Section 313 of the Federal Power Act (16 U. S. C. A. Sec. 825 L.). A copy of the said application is attached hereto.

2. On June 7, 1938, the Commission entered and served upon your Petitioner an Order to Show Cause, requiring your Petitioner to submit in writing: "• • • detailed information concerning its reported acquisition of 341,350 shares of common stock of Jersey Central Power & Light Company in apparent violation of Section 203 (a) of the Federal Power Act"; and to show cause, if any: "• • • why this Commission should not proceed to enforce the requirements of said Act."

3. On June 24, 1938, Petitioner filed its return or answer to the said Order to Show Cause. In said return, Petitioner set forth to the said Commission the following facts, which are hereby reaffirmed and realleged:

a) On March 11, 1938, the Board of Public Utility Commissioners of the State of New Jersey, acting pursuant to the statutes of such State, duly authorized Petitioner to acquire 341,350 shares of the common stock of Jersey Central Power & Light Company. (A copy of the Decision of said Board, granting such authority, is annexed hereto and marked Exhibit "A".)

b) On March 14, 1938, Petitioner acquired and took full title to such shares, after having fully complied with the terms and conditions of the Decision of said Board.

c) Jersey Central Power & Light Company, whose shares were so acquired, does not own or operate any facilities for

the transmission of electric energy in interstate commerce, nor for the sale of such energy at wholesale in interstate commerce, nor any facilities of any kind subject to the jurisdiction of the Federal Power Commission; such Company [fol. 1105] is, therefore, not a "public utility" within the special definition of that term as contained in the Federal Power Act, and as referred to in Section 203 (a) of the Act. There is no provision in Section 203 (a) of the Act, or elsewhere, which gives the Commission jurisdiction over the aforesaid acquisition; or which requires your Petitioner to obtain the approval of the Federal Power Commission before acquiring the stock of Jersey Central Power & Light Company; or which made it unlawful for your Petitioner to acquire such stock on March 14, 1938.

4. On July 5, 1938, the Commission entered and served upon your Petitioner a so-called "Order Instituting Investigation and Setting Date of Hearing", constraining your Petitioner to attend a public hearing on the question therein propounded, whether or not the acquisition by your respondent on March 14, 1938, of 341,350 shares of stock of Jersey Central Power & Light Company:

"• • • involved the purchase, acquisition, or taking by a public utility of any security of another public utility within the meaning of Section 203 (a) of the Federal Power Act • • •"

Pursuant to this order, formal public hearings were had before an examiner of the Commission, commencing September 27, 1938, and adjourned *sine die* October 10, 1938, wherein testimony was taken on the said issue.

5. On July 18, 1939, the Commission entered and served upon your Petitioner a so-called "Determination by the Commission" wherein the Commission found, *inter alia*, that:

"The acquisition of 341,350 shares of the common capital stock of Jersey Central Power & Light Company by New Jersey Power & Light Company was the acquisition by a public utility of the securities of another public utility within the meaning of Section 203 (a) of the Federal Power Act; that New Jersey Power & Light Company, having acquired such securities without first having secured an order of the Commission authorizing it to do so, has

acquired such securities in violation of the expressed provisions of Section 203 (a) of the Federal Power Act."

[fol. 1106] (A copy of said "Determination by the Commission" is annexed hereto and marked Exhibit "B").

6. The jurisdiction and powers of the Federal Power Commission are prescribed and limited by the Federal Power Act. In bringing and conducting the aforesaid proceeding, and in making the "Determination" herein complained of against your Petitioner, the Commission purports to be acting pursuant to the terms of Part II thereof, entitled "Regulation of Electric Utility Companies Engaged in Interstate Commerce". (16 U. S. C. A. Section 824 *et seq.*) Section 203 (a) of said Part II of said Act provides, in pertinent part:

"No public utility shall sell, lease, or otherwise dispose of the whole of its facilities subject to the jurisdiction of the Commission, or any part thereof of value in excess of $50,000, or by any means whatsoever, directly or indirectly, merge or consolidate such facilities or any part thereof, with those of any other person, or purchase, acquire, or take, any security of any other public utility, without first having secured an order of the Commission authorizing it to do so. * * *"

Section 201 (e) of the said Part II provides:

"The term 'public utility' when used in this Part or in the Part III means any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part."

The uncontradicted and uncontroverted evidence in the record of the proceedings had herein before the Federal Power Commission, and especially the testimony of Messrs. Crumley, Sibley and Lytle, on the formal hearings, establishes the fact that Jersey Central Power & Light Company is not a person who owns or operates facilities subject to the jurisdiction of the Commission under said Part II. Such facilities are there shown to be located entirely within [fol. 1107] the State of New Jersey, and are shown not to extend to, or connect with other facilities at, the State line. It is shown that such facilities are not used for the transmission of electric energy in interstate commerce, or

for the sale of such energy at wholesale in interstate commerce. It is shown that Jersey Central Power & Light Company does not transmit any electric energy for the purpose of ultimate consumption in another State. It is shown that the facilities of this Company are used only for the generation of electric energy, and its local transmission, distribution and sale entirely within the State of New Jersey. There is no substantial evidence that Jersey Central Power & Light Company is a "public utility", as that term is defined in the Federal Power Act. There is no substantial evidence that the Commission has jurisdiction to pass on the aforesaid acquisition by your Petitioner of 341,350 shares of stock of Jersey Central Power & Light Company. In view of the substantial and material evidence in the record, the Commission has exceeded, and unlawfully construed, its jurisdiction as prescribed and limited by the terms of the Federal Power Act in making and entering the finding recited in paragraph "5" hereof.

7. There is no substantial evidence in the record of the proceedings had before the Federal Power Commission to support the findings contained in the "Determination by the Commission"; and said findings of fact are contrary to the evidence, and arbitrary and capricious, in the following particulars, *inter alia:*

[fol. 1108] A. The following portions of finding number (1) concerning the connecting transmission facilities of Jersey Central Power & Light Company (hereinafter called "Jersey Central") and Public Service Electric and Gas Company (hereinafter called "Public Service"), located between South Amboy and Perth Amboy in the State of New Jersey, are erroneous, and made without substantial evidence:

1. "* * * such transmission facilities of the above named companies are utilized for the transmission of electric energy in both directions between Mechanic Street substation and the substation of Jersey Central * * *."

The record contains no evidence contradicting the testimony of witness Crumley, who actually operates the Jersey Central property, and of witness Sibley, who investigated the operations of both companies, that the transmission facilities of Jersey Central at South Amboy, extending to the Raritan River, are utilized solely for the transmitting

of electric energy to the Raritan River where such facilities connect with the transmission facilities of Public Service, and are not utilized by Jersey Central for the transmission of said energy to Mechanic Street substation of Public Service, contrary to the implication of said finding. Uncontroverted testimony clearly shows that the said transmission facilities of Jersey Central are not used or utilized by Jersey Central for the receipt of commercial energy from said Public Service except for rare emergency occasions; and that instant flashes of energy received by Jersey Central over the said facilities are of a casual and accidental character, having no commercial significance, and are immaterial to the business of the company, or the matters at issue in this proceeding.

2. "• • • such transmission facilities at Mechanic Street substation are connected directly and at all times with a common bus bar in the Mechanic Street substation. • • •"

The bus bar in the Mechanic Street substation of Public Service Electric & Gas Company is shown by uncontroverted testimony to be a facility owned and operated by, and under the sole and exclusive control of, said Public Service, and is shown not to be a facility "common" to Public Service and Jersey Central; and no transmission facilities of Jersey Central are connected with such bus bar; contrary to the implication contained in said finding. [fol. 1109] 3. "• • • normally electric energy passes over such transmission facilities daily in both directions between the points specified • • •"

The testimony of the above witnesses shows that energy is not "normally" transferred daily from said Public Service to Jersey Central, but that transfers in this direction are of unusual and instantaneous character.

B. The following portions of finding number (2) concerning the said facilities of Jersey Central and Public Service, and the certain separate and distinct connecting transmission facilities of Public Service and Staten Island Edison Corporation, are erroneous, and made without substantial evidence:

1. "• • • the transmission facilities described provide a direct and interconnected line for the flow of electric

energy between the substation of Jersey Central Power & Light Company located adjacent to its generating plant in South Amboy and Atlantic substation of Staten Island Edison Corporation on Staten Island in the State of New York, via Mechanic Street substation, * * *"

Witnesses Crumley, Sibley and Lytle have demonstrated, without controversy, that the flow of electric energy between the interconnecting facilities of Jersey Central and Public Service is a flow unconnected and unrelated in any commercial or business sense with any flow of power which may occur on the interconnecting facilities of said Public Service and Staten Island Edison Corporation, and the record shows that there is no direct line for the flow of electric energy between any facilities of Jersey Central and any facilities of Staten Island Edison Corporation; contrary to the above recited portion of finding number (2), and other similar recitals in said finding.

2. "* * * such transmission facilities of Public Service Electric and Gas Company and Staten Island Edison Corporation are attached to the same common bus bar at Mechanic Street substation to which is attached the transmission facilities of (Jersey Central and Public Service) * * *"

The said bus bar is, as above pointed out, shown to be a Public Service facility, and connected only to Public Service transmission facilities, not "common" to Public Service and Jersey Central and Staten Island Edison Corporation; all contrary to the terms of such portion of said finding number (2).

3. "* * * electric energy transmitted over * * * (Jersey Central facilities) to Atlantic substation, on Staten Island, in the State of New York, via Mechanic Street substation, is generated in the State of New Jersey and consumed in the State of New York; that electric energy transmitted from Atlantic Street substation to * * * (Jersey [fol. 1110] Central facilities) via Mechanic Street substation, is generated in the State of New York and consumed in the State of New Jersey * * *"

The evidence in this proceeding shows that there is no routing or sending of energy between Jersey Central and Staten Island Edison Corporation "via" facilities of Public Service. Such evidence rebuts the inference contained

in the above findings that any consumption of Staten Island energy by Jersey Central, or any consumption of Jersey Central energy by Staten Island, is a matter of ordinary or usual course, or is a result of volition or desire, or intent of the parties concerned, or is material to the matters in issue in this proceeding or is of other than strictly academic and scientific interest. The relevant evidence in this proceeding demonstrates that electric energy transmitted over facilities of Jersey Central, at the place in question, is transmitted to and received from, Public Service Electric & Gas Company—delivery being taken by both companies at a point within the State of New Jersey.

C. Finding number (3) is erroneous in its entirety and made without substantial evidence. In contradiction of the text thereof:

There is no evidence whatsoever in this proceeding that the transmission facilities owned and operated by Jersey Central at the place in question, are utilized by the said company or by any other person for the transmission of electric energy in interstate commerce, and the uncontradicted testimony of witnesses testifying as to the business done by Jersey Central thereover, demonstrates that such facilities are utilized only for the transmission of electric energy between Jersey Central and Public Service Electric & Gas Company within the State of New Jersey; and as a matter in intrastate local traffic or commerce between the said companies. That portion of finding number (3) to the effect that Jersey Central is a "public utility" within the meaning of the Federal Power Act, is in direct contradiction to the testimony of witnesses familiar with the facts as to the business done by said company.

D. Finding number (5) is erroneous in its entirety, and made without substantial evidence. In contradiction of the text thereof:

There is no evidence in the proceedings had herein before the Federal Power Commission, that Jersey Central Power & Light Company is a "public utility" within the meaning of Section 203(a) of the Federal Power Act, and the facts brought out in the record herein demonstrate that such company is not a "public utility" within such meaning. There is, therefore, no evidence that New Jersey Power & Light Company, in acquiring 341,350 shares of [fol. 1111] the common capital stock of Jersey Central

Power & Light Company, has violated the provisions of said Section 203(a) of the Federal Power Act.

8. In making the aforesaid "Determination by the Commission," the Federal Power Commission has failed and refused to follow the controlling legal principles and decisions of the United States Supreme Court in construing the term "interstate commerce"; and has exceeded or unlawfully construed the terms of the Federal Power Act. Said "Determination" is illegal, arbitrary, null and void because it is made in violation of the express terms, and intent of the Federal Power Act, and of the established rules of statutory construction applicable thereto.

9. The business, commerce and affairs of Jersey Central Power & Light Company are exclusively and entirely carried on by it within the State of New Jersey. The power to regulate such business, commerce and affairs, has not been delegated to the United States or the Congress thereof under the terms of Article One, Section 8, Subdivision 3, of the Constitution; but has been specifically reserved to the State of New Jersey by Amendment X of the said Constitution. In assuming to fix, by the "Determination" here complained of, the status of Jersey Central Power & Light Company as a Company subject to the jurisdiction of the Federal Power Commission, and in assuming to assert jurisdiction over the acquisition by your Petitioner of the stock of this Company, the said Commission has invaded rights, powers, and jurisdiction specifically reserved to the State of New Jersey and its duly constituted authorities; and has deprived your Petitioner of its right to be free of Federal regulation in respect of the said acquisition, and has deprived your Petitioner of its property, without due process of law.

[fol. 1112] 10. In making the aforesaid "Determination", the Federal Power Commission has adversely affected and cast doubts upon the title of your Petitioner to, and the right of your Petitioner to keep and hold, the stock of Jersey Central Power & Light Company, which said stock was acquired by your Petitioner on March 14, 1938. The aforesaid "Determination" places your Petitioner in jeopardy of the imposition of excessive fines and penalties which the Commission may purport to assess under the terms of Sections 315 and 316, of the Federal Power Act (16 U. S. C. A.

Sections 825 (n)-(o)); and purports to finally determine the status of your Petitioner as a corporation which has violated the express terms of the Federal Power Act, and deprives your Petitioner of its property and rights without due process of law.

Wherefore, for the reasons hereinabove set forth, your Petitioner respectfully prays:

a) That your Honorable Court review the "Determination by the Commission", issued by the Commission July 18, 1939, against your Petitioner;

b) That upon review of the said "Determination" your Honorable Court set aside and annul the said "Determination" and find that your Petitioner has not violated the terms of the Federal Power Act in the acquisition of shares of stock of Jersey Central Power & Light Company, as above set out;

c) That your Honorable Court grant such other and further relief as may be just and proper in the premises.

New Jersey Power & Light Company, by A. E. Ward.

Travis, Brownback & Paxson, 61 Broadway, New York, N. Y., Attorneys for Petitioner.

[fol. 1113] State of New York,
County of New York, ss.:

A. E. Ward, being duly sworn, deposes and says: That he is a Vice-President of New Jersey Power & Light Company, the petitioner within named; that he has read the foregoing petition and knows the contents thereof; that the same is true to the best of his knowledge, information and belief.

A. E. Ward.

Sworn to before me this 9th day of November, 1939. (Sgd.) William J. Horrigan, Notary Public, Kings County. Kings Co. Clk's No. 559, Reg. No. 1279. N. Y. Co. Clk's No. 3, Reg. No. 1H584. (Seal.) Commission expires March 30, 1941.

Note.—Omitted from this print. (Exhibit "B", being Determination by the Commission. Printed elsewhere in record Vol. II, page 936. Also application for rehearing by

New Jersey Power & Light Company. Printed elsewhere in record Vol. II, page 941.

[fol. 1114] EXHIBIT A

STATE OF NEW JERSEY

Board of Public Utility Commissioners

In the Matter of the Application of THE NEW JERSEY POWER & LIGHT COMPANY for Approval of the Exchange of Certain of Its Investments for Other Securities

DECISION

Wall, Haight, Carey & Hartpense, by Edward J. O'Mara and William F. Morris, for the Petitioner

The petition of the New Jersey Power & Light Company seeks the Board's approval of the exchange of 53,850 shares of $6.00 Cumulative Preferred Stock of Metropolitan Edison Company, a Pennsylvania corporation, for 341,350 shares of Common Stock of Jersey Central Power & Light Company, a New Jersey corporation.

Upon the hearing of the application it appeared (1) that the market value of the $6.00 Cumulative Preferred Stock of Metropolitan Edison Company was of an estimated value of $4,312,308.00 and (2) that there is no current market price quoted on the Common Stock of the Jersey Central Power & Light Company and (3) that 712,411 shares of the Common Stock of Jersey Central Power & Light Company are pledged to secure $20,000,000.00 principal amount of debentures of National Public Service Corporation, which debentures have a current market value of 45 per cent, of par or an aggregate market value of $9,000,000.00 which is [fol. 1115] equivalent to $12.63 per share for the Common Stock of the Jersey Central Power & Light Company pledged as collateral for said debentures, and that, based on that value, 341,350 shares of Common Stock of Jersey Central Power & Light Company would have a value of $4,312,308.00.

And it further appeared that the said $20,000,000.00 principal amount of the National Public Service Corporation

debentures are the subject of litigation presently pending before the Courts in the State of New York.

And it now appearing that, in view of the absence of definite proof of the value of the shares of the Common Stock of the Jersey Central Power & Light Company, it would not be in the public interest to approve the proposed exchange of securities unless adequate security is pledged by escrow to insure to the New Jersey Power & Light Company the equivalent of the full value of the said $6.00 Cumulative Preferred Stock of the Metropolitan Edison Company, in the event that the sale of the Common Stock of the Jersey Central Power & Light Company pledged as collateral for the debentures of National Public Service Corporation as aforesaid does not result in a price of $12.63 per share for said Common Stock. In such event recourse should then be had to additional securities as aforesaid in an amount sufficient to equal $4,312,308.00.

The Board hereby approves the exchange of 53,850 shares of $6.00 Cumulative Preferred Stock of Metropolitan Edison Company for 341,350 shares of the Common Stock of Jersey Central Power & Light Company and approves the transfer to the petitioner of said common stock [fol. 1116] on the books of the Jersey Central Power & Light Company upon the following conditions:

1. That the applicant will pledge in escrow with any bank or trust company of the State of New Jersey authorized to act as an escrow agent or representative under an escrow agreement to be approved by the Board, $1,000,000.00 principal amount of the Mohawk Valley Company 6% Consolidated Refunding Gold Bonds due November 1, 1981, and $1,000,000.00 principal amount of the Mohawk Valley Company 6% Consolidated Refunding Gold Bonds due November 1, 1991. In the event that the Common Stock of the Jersey Central Power & Light Company brings less than $12.63 per share at judicial sale, then the securities pledged under this provision shall be used to answer and satisfy the amount by which the value of 341,350 shares of common stock of Jersey Central Power & Light Company at said sale price is less than $4,312,308.00.

2. That this approval does not extend to the value of the property or to the accounts of any of the companies involved in this transaction, and further

3. That any entries made on the books of the applicant company shall be identified so as to permit of ready analysis.

4. That said exchange is approved without prejudice to the authority of the Board or the State with respect to rates, valuations, services or any other matter whatsoever in any future proceedings.

[fol. 1116] 5. That the applicant company shall file with the Board within ten days from the date hereof an escrow agreement in accordance with condition (1) above, which shall be satisfactory to the Board.

6. That the applicant company shall file with the Board within ten days from the date hereof its unqualified acceptance of the conditions herein stated; otherwise the approval herein granted shall be null and void.

Dated, March 11, 1938.

Board of Public Utility Commissioners, by (Signed) Thomas L. Hanson, Commissioner; (Signed) Frank J. Reardon, Commissioner. (Seal.) Attest: (Signed) Emmett T. Drew, Secretary.

[fol. 1118] IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT—October Term, 1939

No. 7256

JERSEY CENTRAL POWER & LIGHT COMPANY, Petitioner,

vs.

FEDERAL POWER COMMISSION, Respondent

No. 7257

NEW JERSEY POWER & LIGHT COMPANY, Petitioner,

vs.

FEDERAL POWER COMMISSION, Respondent

And afterwards, to wit, 17th day of December, 1941, come the parties aforesaid by their counsel aforesaid, and this case being called for argument sur pleadings and

briefs, before the Honorable John Biggs, Jr., Honorable Albert B. Maris and Honorable Herbert F. Goodrich, Circuit Judges, and the Court not being fully advised in the premises, takes further time for the consideration thereof,

And afterwards, to wit, on the 25th day of May, 1942, come the parties aforesaid by their counsel aforesaid, and the Court, now being fully advised in the premises, renders the following decision:

[fol. 1119] IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT, OCTOBER TERM, 1939

No. 7256

JERSEY CENTRAL POWER & LIGHT COMPANY, Petitioner,

v.

FEDERAL POWER COMMISSION, Respondent

No. 7257

NEW JERSEY POWER & LIGHT COMPANY, Petitioner,

v.

FEDERAL POWER COMMISSION, Respondent

On Petitions for Review from an Order of the Federal Power Commission

OPINION—Filed May 25, 1942

Before Biggs, Maris and Goodrich, Circuit Judges

BIGGS, *Circuit Judge:*

[fol. 1120] Questions Involved

The petitioners in the cases at bar, Jersey Central Power and Light Company and New Jersey Power and Light Company, seek review of an order of the Federal Power Commission entered July 18, 1939 pursuant to the Federal Power Act (16 U. S. C. A. Sec. 791 et seq.). The first question presented for our determination is whether this court has jurisdiction of the petitions by virtue of Section 313(b) of the Federal Power Act (16 U. S. C. A. Sec. 825 1(b)). The second question is whether the "Determina-

tion of the Commission" can be sustained on its merits. The facts are as follows:

Facts

On June 7, 1938 the Commission entered an order pursuant to the provisions of Section 301(b), Part III of the Federal Power Act (16 U. S. C. A. Sec. 825 1(b)), directing the petitioner, Jersey Power, to submit information concerning the acquisition by it of 341,350 shares of the common stock of the petitioner, Jersey Central, without the authorization of the Commission and allegedly in violation of Section 203(a) of the Act (16 U. S. C. A. Sec. 824b(a)). This section provides that no public utility within the purview of the Act shall purchase or acquire any security of any other public utility within the purview of the Act without having first secured an order of the Commission authorizing it to do so. Jersey Power, admitting that it was a public utility within the meaning of Section 201(e) of the Act (16 U. S. C. A. 824(e)), filed an answer to the Commission's order admitting that it had acquired the stock of Jersey Central but denying that the provisions of Section 203(a) were applicable to the transaction for the asserted reason that Jersey Central was not a public utility within the meaning of the Act. Jersey Central sought intervention, was made a party to the proceedings, and asserted the same defense. After hearing, the Commission found that Jersey Central was a public utility within the meaning of the Act and that Jersey Power had acquired the securities in violation of Section 203(a). The Commis- [fol. 1121] sion issued its findings on July 18, 1939. Petitions for rehearing timely filed by both Jersey Central and Jersey Power were denied by the Commission on September 15, 1939. Review of the Commission's determination was then sought in this court.

Both Jersey Central and Jersey Power own and operate public utility systems in New Jersey. The petitioners and another electric public utility corporation, Public Service Electric and Gas Company, serve territories which comprise about two-thirds of the area of the State of New Jersey. Jersey Power's territory lies in the Western part of the State and is bounded roughly upon the west by the line of the Delaware River and the western boundary of New Jersey. To the south Jersey Power's territory

moves down with the line of the river to territory contiguous with that served by the Philadelphia Electric Company and its subsidiaries in Pennsylvania.

Jersey Central for its part serves two non-contiguous areas in New Jersey. One lies to the north adjacent to and east of the territory of Jersey Power and contiguous to the area served by Public Service on the east. Jersey Central has another area of service to the south and east of the territory of Public Service just mentioned. The latter area of Jersey Central runs from the Atlantic coast back to and contiguous with territory served by Public Service. It is with this area of service of Jersey Central with which we are most concerned in the cases at bar. Beginning at a point near Barnegat on the Atlantic coast, Jersey Central's lines run north through the New Jersey seaside resorts to South Amboy. Further to the west in central New Jersey other lines of Jersey Central supply electricity to New Lisbon and villages and towns to the north of it. These western lines connect with the eastern system at South Amboy.

From South Amboy a main connecting line runs across the territory of Public Service into the northern area served by Jersey Central. There is a large generating plant at South Amboy which is connected with a substation main- [fol. 1122] tained by Public Service at Perth Amboy on the opposite side of the Raritan River. This substation is known as the Mechanic Street Substation and what goes on there furnishes many of the basic facts giving rise to the controversy at bar.

The line which connects Jersey Central's generating plant at South Amboy with the Mechanic Street Substation is a little over two miles long. Jersey Central owns about seven-eighths of a mile of the connecting line, that portion of it which runs from Jersey Central's generating plant to the south bank of the Raritan River. At that point a submarine cable, owned by Public Service, takes the current under the Raritan River. Emerging from the river the current is taken by an overhead line owned by Public Service for a distance of about a mile and a fifth to the Mechanic Street Substation owned by Public Service. The connecting line comes into the Mechanic Street Substation through metering equipment and switches and is connected with a "bus-bar". There are a number of connections to

the bus. Two are to the plant of the General Cable Corporation, a customer of Public Service. Two are connections with Metuchen, New Jersey. Another connection leads to the town of Keasby in that state. An additional connection runs to Public Service's substation at Carteret, New Jersey. There is also, and this is of particular importance, a tap with metering equipment and an air break switch connected to a line of Staten Island Edison Corporation which serves Staten Island, New York.

At this point it becomes necessary to endeavor to describe three "types" of electricity which flow through the Public Service bus-bar at the Mechanic Street Substation. These three "types" of power are designated as "emergency", "economy-flow" and "incidental" or "slop-over" power. The petitioners take the point of view that we are concerned particularly with the last two kinds of electrical energy. But the fact is that electricity is energy no matter what you call it and the "types" of electrical energy involved in the cases at bar, as the petitioners use that word, refer [fol. 1123] really to the kind of contractual relations between Jersey Central and Public Service on the one hand and Public Service and the Staten Island Company on the other, pursuant to which current comes to or from Public Service's bus-bar at the Mechanic Street Substation.

"Emergency" power is simply electricity supplied by one power company to another when the latter needs additional electrical energy to take care of an emergency. The cost of emergency power is higher than that of the other types of power. The cost of and conditions for supplying emergency power between Public Service and Jersey Central are governed by a contract executed by the two companies and dated March 24, 1931.

The contract of March 24, 1931 provides that if the interconnecting facilities of the two companies are made available for power other than emergency power, the use of the connections should be made available by agreement between the companies. Accordingly Jersey Central and Public Service arrived at an oral agreement for an interchange of "economy-flow" electricity. Economy-flow electricity may be described as energy generated and supplied by one company to another when the receiving company has enough generating facilities to generate that electricity for itself but elects to receive it from another company because that company can generate and deliver it to the point where it is

needed more cheaply than the purchasing corporation. Economy-flow power is supplied to Public Service by Jersey Central upon a day-to-day basis and the price is calculated by a formula which consists in taking half of the cost of the electricity to the generating company and adding to that figure half of what the cost would have been if the purchasing company had generated the electricity.

Public Service receives economy-flow current almost daily from Jersey Central but it should be noted that Jersey Central's net receipts from the sale of economy-flow current for the year 1937 were about $10,000 while its net income from all the electricity sold by it during the same period [fol. 1124] amounted to $4,170,585. Jersey Central in fact is principally engaged in the retail sale of electricity to numerous individual customers in its territory. We shall deal with the electricity supplied by Jersey Central to Public Service in terms of kilowatt-hours at a later point in this opinion.

We think that "slop-over" or "incidental" current is well described upon the brief of the petitioner, Jersey Power, as "* * * an electrical phenomenon which consists in an instantaneous, involuntary ebb and flow where there is a physical connection, otherwise unused, between two systems. Where such an unused connection exists the two systems are normally 'in balance.' When there is a sudden demand for more energy made on one of the systems, its generators are speeded up to meet the demand. There is a tendency, however, for the system on which the sudden demand is made, to draw on the system with which it is connected for the instantaneous period between the demand and the compensating generating speed-up, * * *" Since the systems of Jersey Central, Jersey Power and Public Service are interconnected and are synchronized,[1]

[1] Synchronization consists in running the generators upon interconnected systems at the same rate of speed. One or more generators at strategic points upon the connected systems set the pace like metronomes running in unison. It appears from the record in the cases at bar that the metronome generators which set the pace for the interconnected alternating current power systems which we are discussing are operated on the systems of other interconnected public utility systems in Pennsylvania and New York. The Staten Island Company is in turn a part of and connected with

not only with each other but also with other electrical transmission systems covering the southern part of New Jersey, the southeastern part of Pennsylvania, the northeastern part of Maryland, Delaware and with the Staten Island Company, "spinning" reserve is maintained by Jersey Central, Jersey Power and Public Service. Additional spinning reserve is procurable from interconnected public utilities in Pennsylvania and New York. Spinning reserve [fol. 1125] consists of spinning dynamos, whose current may be thrown on the circuits in case of necessity. Since these various electric utilities systems are interconnected, it is obvious that there will be some incidental or slop-over current passing through the various system connections including the bus-bar at the Mechanic Street Substation which comprise the connections between Jersey Central and Public Service on the one hand and Public Service and the Staten Island Company on the other.

According to an exhibit introduced in evidence by the Commission the amount of economy-flow current received by Public Service from Jersey Central in 1937 and in the first three months of 1938 far exceeded the current in that category gotten by Jersey Central from Public Service. This power was metered at South Amboy and passed through the bus-bar of the Mechanic Street substation. In 1937, 55,421,000 KWH of electricity were delivered by Jersey Central to Public Service against 315,600 KWH received by Jersey Central from Public Service. For the first three months of 1938 Jersey Central delivered to Public Service 10,140,000 KWH against 87,400 KWH received by Jersey Central from Public Service. In 1936 Public Service received from Jersey Central 70,694,825 KWH against 1,400,720 KWH delivered by Public Service to Jersey Central. In 1935 the KWH delivered by the two companies to each other were comparable to the amounts delivered in 1936 and in 1934 the figures were comparable to those of 1937.

The meters at the Mechanic Street Substation were read at half hour intervals from 6 A. M. until midnight and at

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one of these systems. Though much emphasis is laid by some of the Commission's witnesse. on the phenomenon of synchronization, it does not possess significance under the facts of the appeals at bar except to the extent indicated in the opinion.

hour intervals from midnight to 6 A. M. These readings were recorded regularly on log sheets kept by the station employees. From January 1, 1937 to September 6, 1938, 25,500 readings were made and recorded in the log. 184 readings, which the Commission found representative, were selected from the 25,500 readings and analyzed further by the Commission's experts. These show that as electricity flowed from Jersey Central to the Mechanic Street Substation, current flowed out from the bus-bar to [fol. 1126] the Staten Island Company. The 184 readings demonstrated that the electricity transmitted by Jersey Central to Public Service exceeded the local requirements for electricity from the bus-bar. 24 of the 184 readings were subjected to further analyses by the Commission in an attempt to determine the percentage of electricity supplied to the Staten Island Company originating in the Jersey Central system. The Commission found that these readings demonstrated that electricity was flowing out of all of the bus-bar connections except the connection with Jersey Central where current was flowing in. As a consequence the Commission found there was no electricity coming in to the bus-bar on these occasions except from Jersey Central. As to five periods examined it appeared that the flow of electricity to Public Service on the bus-bar from Jersey Central exceeded the requirements of the Central Division of Public Service, the load required to maintain the Staten Island Company and all local requirements of the substation.

The petitioners take exception to the conclusions drawn from the readings by the Commission's experts. They say that you can't earmark a kilowatt. This saying is as true as a statement that running water cannot be earmarked. But if water is put into a reservoir which is connected with pipes which cross state lines, some of the water will cross state lines and enter into interstate commerce if it be the subject of commercial transactions. The analogy between water and electricity is illustrative of the facts in the case at bar. The Commission was justified in finding as a fact that some of the electricity generated by Jersey Central at its South Amboy plant reached Staten Island.

Operators of the Staten Island Company stationed at the Staten Island end of the submarine cable running from the bus-bar under the Arthur Kill and operators of Public

Service on the New Jersey side of that estuary watched meters which registered the flow of current passing between the two companies and could and did cut the flow of electricity between them from time to time. The petitioners [fol. 1127] contend that much of the electricity which passed through the connection was slop-over or incidental current, that such flow was accidental and unintentional and should be disregarded as not in fact constituting interstate commerce. But on at least six occasions between August, 1935 and March, 1938 emergency current was metered through the cable from Public Service to Staten Island. Economy-flow current passed with some frequency between Public Service and the Staten Island Company. Between August 26, 1935 and December 31, 1935 the Staten Island Company got economy-flow current from Public Service at least ten times and received approximately 51,800 KWH from such flow. In 1936 the Staten Island Company received economy-flow current from Public Service thirty-seven times and got over 329,600 KWH therefrom. As an exhibit introduced by Jersey Power before the Commission shows, from the end of August, 1935 until the middle of March, 1938, leaving incidental flow out of the calculation but including emergency current therein, the Staten Island Company received 403,125 KWH from Public Service for which it paid over $3,300.

The amount of incidental flow current between Public Service and the Staten Island Company from the end of August, 1935 to the middle of March, 1938 is shown by another exhibit introduced into evidence by Jersey Power. It appears that from August 26 to December 31, 1935 the Staten Island Company delivered to Public Service 1,125,000 KWH of electrical energy and received from Public Service in the same period 1,013,900 KWH, leaving an excess of deliveries from Staten Island to Public Service of 111,100 KWH. Transmission figures of KWH for 1936, 1937 and 1938 are comparable and show that throughout the period designated, the Staten Island Company delivered more incidental flow current to Public Service than it received from that company. But the emergency and economy-flow current which the Staten Island Company received from Public Service was much greater than the amount of incidental flow current which went from the Staten Island Company to Public Service. Subtracting the value of the incidental flow

[fol. 1128] current delivered by Staten Island to Public Service from the emergency and economy-flow current delivered by Public Service to Staten Island we arrive at the balance of 52,100 KWH in favor of the Staten Island Company for which that company paid Public Service over $2,400.

How much of the electricity which flowed from Public Service to the Staten Island Company originated in Jersey Central's South Amboy generators and passed over the connecting line from South Amboy to the Machanic Street Substation and thence through the bus-bar to the Staten Island Company no one can say. It is certain that some did go to the Staten Island Company. Measured in terms of the KWH generated and transmitted by large electric public utility systems it was small.

There are details of the picture which we have omitted but what we have said presents with reasonable accuracy the situation between Jersey Central and Public Service on the one hand and Public Service and the Staten Island Company on the other.

The Commission bases its entire case upon the transmission of electricity by Jersey Central over the connecting line to Public Service and the fact that some part of this current reached the Staten Island Company.

THE LAW

Jurisdiction to Review the Determination by the Commission

A preliminary question must be disposed of. The petitioners assert that this court has jurisdiction to review the "Determination by the Commission" which found Jersey Central and Jersey Power to be public utilities within the meaning of Part II of the Federal Power Act. The Determination by the Commission was followed by its order denying petitions for rehearing. The denial of such petitions is a prerequisite to the review prescribed by the Act in courts of appeals. See Section 313 of the Act (16 U. S. C. A. Sec. [fol. 1129] 825 l) which provides that any party to a proceeding under the Act aggrieved by "an order" issued by the Commission may obtain a review of such order in a circuit court upon the denial of rehearing by the Commission. The question which we must determine is whether the "Determination by the Commission" has the status

of a reviewable order within the purview of Section 313(b) of the Act (16 U. S. C. A. Sec. 825 l (b)).

There can be no doubt that the effect of the Commission's determination is to establish Jersey Central's status as a public utility within the meaning of Section 201 of the Federal Power Act (16 U. S. C. A. Sec. 824). If the determination by the Commission that Jersey Central is a public utility stands, the sale of the stock of Jersey Central to Jersey Power became subject to the provisions of Section 203 (a) of the Act. But more than this, if the determination is affirmed, all the provisions of Parts II and III of the Act become applicable to Jersey Central. Some of the prohibitions and commands imposed by the statute upon a corporation with the status of a public utility within Section 201 of the Act are set out in the margin. These may be felt to be burdensome and onerous but Congress has determined them to be necessary for the regulation of electric public utilities engaged in interstate commerce.[2]

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[2] A public utility may not sell, lease or otherwise dispose of its facilities without the approval of the Commission, Section 203(a) (16 U. S. C. A. Sec. 824b(a))

May not establish rates and charges without the approval of the Commission, Section 206(a) (16 U. S. C. A. Sec. 824(e)(a)):

May be required to render more efficient service by the Commission, Section 207 (16 U. S. C. A. Sec. 824f):

Must file upon the request of the Commission inventories, statement of original cost, and inform the Commission as to all additions, extensions and new construction, Section 208(b) (16 U. S. C. A. Sec. 824g(b)):

Must keep its accounts according to regulations prescribed by the Commission, Section 301(a) (16 U. S. C. A. Sec. 825(a)):

Must furnish to the Commission any information in respect to its accounts and records, maps, contracts and reports which the Commission may require, Section 301(b) (16 U. S. C. A. Sec. 825(b)):

Its rates of depreciation may be fixed by the Commission, Section 302 (16 U. S. C. A. Sec. 825a):

Must file annual and periodic special reports as required by the rules or orders of the Commission, Section 304 (16 U. S. C. A. Sec. 825c):

Must not have as directors any officer or director of a bank,

[fol. 1130] While the rules which we must follow in determining whether the Commission's determination may be reviewed by this court are not set out specifically in the decision of the Supreme Court in Rochester Telephone Corporation v. United States, 307 U. S. 125, none the less the case indicates what our conclusion should be. In the Rochester case the Supreme Court was dealing with an appeal under Section 238 of the Judicial Code as amended (23 U. S. C. A. Sec. 345) from a final decree by a district court of three judges under the Urgent Deficiencies Act of October 22, 1913 (28 U. S. C. A. Secs. 45, 47a) as extended by Section 402(a) of the Federal Communications Act (47 U. S. C. A. Sec. 402(a)), dismissing on the merits a bill to review an order of the Federal Communications Commission.

The Federal Communications Commission had ruled that the Rochester Telephone Corporation owed obedience to certain orders issued by the Commission. Those orders required all telephone carriers subject to the Federal Com- [fol. 1131] munications Act to file schedules of their charges, copies of their contracts with other telephone carriers and other information. The Rochester Telephone Company not responding to the orders, a Division of the Commission

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trust company, banking association, or firm authorized to underwrite securities of a public utility or an officer or director of an electrical equipment company supplying electrical equipment to such public utility, Section 305(b) (16 U. S. C. A. Sec. 825d(b)):

Must pay penalties fixed by the Commission not to exceed $1,000 for wilful failure to comply with any order or to respond to any subpoena, issued under the Act, Section 315 (16 U. S. C. A. Sec. 825n):

For any wilful or knowing act of commission or omission in violation of any of the terms of the Act any person may be punished by a fine not exceeding $5000 or imprisonment for not more than two years or both, Section 316(a) (16 U. S. C. A. Sec. 825o(a)):

And for any wilful or knowing violation of any rule, regulation, condition or order made by the Commission any person may be punished by a fine not exceeding $500 per day for each and every day during which the offense occurs, Section 316(a) and (b) (16 U. S. C. A. Sec. 825o(a) and (b)).

ordered the company to show cause why it should not be required to file responses to the orders served upon it. The Rochester Telephone Company answered and took the position that it was outside the requirements of the Federal Communications Act in the matters concerning which the Commission attempted to impose its jurisdiction. The Commission determined that the Rochester Telephone Corporation was under the "control" of the New York Telephone Company and therefore was not entitled to the classification of a mere connecting carrier under Section 2(b) (2) of the Act (47 U. S. C. A. Sec. 152(b) (2)). The Rochester Telephone Company filed a bill in the District Court seeking to have the orders of the Commission set aside and annulled. The District Court held that that company did not come within the exception set forth in Section 2(b)-(2) of the Act and it appealed.

The Supreme Court by Mr. Justice Frankfurter discussed the procedural problems involved in appeals from "negative" orders or orders *vel non*, dividing, pp. 129, 132, the prior decisions involving "negative" orders into three categories. We are interested in the second of these categories because the orders therein bear an analogy to the "Determination by the Commission" at bar. That second category is: Where the action of the Commission sought to be reviewed declines to relieve the complainant from the command of a statute forbidding or compelling conduct on his part. As as example Mr. Justice Frankfurter cites, "* * * A denial of permission by the Interstate Commerce Commission for a departure from the long-short haul clause." The second group "* * * is composed of instances of statutory regulations which place restrictions upon the free conduct of the complainant."

[fol. 1132] The complainant may rid himself of these restrictions by asking the Commission to place him outside of the statute or, if within the terms of the statute, he may invoke the dispensing power of the regulatory body. In the latter situation the complainant, seeking a judicial review to rid himself of adverse action by the Commission, must clear the three hurdles of the existence of a case or controversy under Article III of the Constitution, "the conventional requisites of equity jurisdiction; [and] the specific terms of the statute granting to the district courts jurisdiction in suits challenging 'any order' of the Commission." If he can clear these hurdles he reaches his goal, the

jurisdiction in the reviewing court, to hear his appeal. In the case at bar the three hurdles have been removed by the specific review provisions of Section 313(b) of the Federal Power Act. The "Determination by the Commission" at bar is analogous to the orders in the second group described by Mr. Justice Frankfurter, orders imposing statutory obligations and prohibitions and it should follow that this court has jurisdiction to review the action of the Federal Power Commission which makes Jersey Central subject not only to statutory regulations which interfere with its freedom of conduct but compel specific actions by the Company and prohibit other actions by it.

In the case of Federal Power Commission v. Pacific Co., 307 U. S. 156, the question was presented as to whether an order of the Commission denying an application under Section 203(a) of the Act, the very section which the Commission invoked in the case at bar, was reviewable under Section 313(b). The facts were as follows. Two operating power companies filed a joint application under Sections 8 and 203 of the Act (16 U. S. C. A. Secs. 801 and 824b(a)), proposing to transfer all of the assets including licenses from one company to the other, terminating the existence of the first company. The Federal Power Commission found that the applicants had failed to establish that the proposed transfer would "* * * be consistent with the public interest within the contemplation of Section 203(a) [fol. 1133] of the Federal Power Act * * *" and denied the application. The power companies sought a review of the Board's order before the Circuit Court of Appeals for the Ninth Circuit and the Commission challenged the jurisdiction of that court by a motion to dismiss the petition on the ground that the court was without jurisdiction under Section 313(b) because the order of which review was sought was a negative order.

The Supreme Court, ruling that the order complained of was reviewable, p. 159, stated that if the Federal Power Act had included the provisions of the Urgent Deficiencies Act pertaining to reviews of orders of the Interstate Commerce Commission, the decision of the Supreme Court in the Rochester Telephone Corporation case would sustain the assumption of jurisdiction by the circuit court of appeals. Mr. Justice Frankfurter said, "But the Power Act contains a distinctive formulation of the conditions under which resort to the courts may be made and Congress determines the

scope of jurisdiction of the lower federal courts." Referring to Section 313(b), the Supreme Court concluded that the denial of the power companies' application by the Commission as not consistent with the public interest, was an order; that the petitioners were aggrieved by it since without such approval the transfer was forbidden. "Thus," said the Supreme Court, "the statutory scheme of the Power Act only reinforced the analysis made in the Rochester case."

The determination by the Commission that the acquisition of stock of Jersey Central by Jersey Power was in violation of Section 203(a) of the Act is paralleled by the order of the Commission denying the application of the power companies in the Pacific Power & Light Co. case. In the instant case the Commission viewed what had been done in retrospect and in effect forbade it. In the Pacific Power & Light Co. case the Commission viewed what was contemplated and ordered the power companies not to carry out the transfer of assets. In the instant case the Commission found Jersey Central to be a public utility within the meaning of Section [fol. 1134] 201 and thereby imposed upon Jersey Central the burden of complying with the provisions of the Act.

We conclude therefore that we have jurisdiction to review the Determination by the Commission. Compare Canadian River Gas Co. v. Federal Power Commission, 110 F. (2nd) 350, 113 F. (2nd) 1010, cert. den. 311 U. S. 693.

Is Jersey Central a Public Utility Within the Meaning of Section 201 of the Act?

Section 201(e) of the Federal Power Act (16 U. S. C. A. Sec. 824(e)) defines the term "public utility" when used in Parts II and III as "• • • any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part." To determine whether Jersey Central is a public utility within Section 201(e), it is necessary to determine the meaning of the word "facilities" as used in that subsection; that is to say, it is necessary to determine the existence or non-existence of "facilities" subject to the jurisdiction of the Commission. Section 201(b) (16 U. S. C. A. Sec. 824(b)) provides that the provisions of Part II shall apply to the transmission or sale at wholesale of electricity in interstate commerce "• • • but shall not apply to any other sale of electric energy • • • ". The subsection then goes on to provide that the

Commission shall have jurisdiction * * * over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this Part and the Part next following over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, * * *". Section 201(c) (16 U. S. C. A. Sec. 824(c)) provides that for the purpose of Part II, * * * electric energy shall be held to be transmitted in interstate commerce if transmitted from a state and consumed at any point outside thereof; * * *".

The Commission takes the position that Jersey Central owns and operates "facilities" subject to its jurisdiction [fol. 1135] because Jersey Central transmits electricity from its South Amboy generating plant through the line owned by it, seven-eighths of a mile long, which connects at the south bank of the Raritan River with the line of Public Service which runs into the Mechanic Street Substation and is attached to the bus-bar which distributes current to the Staten Island Company. Therefore, say the Commission, Jersey Central is a public utility within the meaning of Section 201(e).

The petitioners lay emphasis on the provisions of Section 201(a) (16 U. S. C. A. 824(a)) which contains the declaration of policy embraced by Congress in passing the Federal Power Act. That Section provides: "It is hereby declared that the business of transmitting and selling electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation of matters relating to generation to the extent provided in this Part and the Part next following and of that part of such business which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States." Jersey Central takes the position that all phases of the conduct of its business properly are subject to regulation by the State of New Jersey and that the New Jersey statute regulating Public Utilities (R. S. 1937, 48:2-13) is entirely sufficient to control and regulate Jersey Central. That company lays particular emphasis on Section 204(f) (16 U. S. C. A. 824c (f)) which provides that "The provi-

sions of this section shall not extend to a public utility organized and operating in a State under the laws of which its security issues are regulated by a State Commission."

Jersey Central points out that the Commission finds that because the electricity which moves between the Staten Island Company and Public Service is in interstate commerce, the facilities of Jersey Central which conduct that electricity to Public Service are in interstate commerce, [fol. 1136] though wholly within the State of New Jersey and functioning solely by reason of a contract between Jersey Central and Public Service for the delivery of electricity from the former company to the latter within the State of New Jersey. This conclusion, says Jersey Central, "* * * is based solely on insignificant and relatively infrequent but wholly uncontrolled occasions when energy of Jersey Central is found in the Staten Island facilities." Both petitioners contend that the Federal Power Act was not intended to include within the jurisdiction of the Commission such a facility as Jersey Central's short line and state that it is an absurdity to bring within federal jurisdiction a generating company whose electricity happens to flow across a state border into the system of a neighboring company. It is, of course, beyond dispute that Jersey Central itself sells no electricity directly in interstate commerce. So far as this record shows, aside from its own local customers, Jersey Central sells electricity only to Public Service and delivers that electricity to Public Service wholly within the State of New Jersey. The jurisdiction of the Commission must rest upon Jersey Central's ownership and operation of facilities for transmission of electricity which flows under the Arthur Kill from New Jersey to Staten Island.

The petitioner, Jersey Power, lays emphasis also upon the legislative history of Parts II and III of the Act. It points out that the first bill introduced on the subject, S. 1725, 74th Cong., 1st Sess., February 6, 1935, provided by Section 201(a) that the provisions of the title should apply to the transmission and sale of electric energy in interstate commerce, to the production of energy for such transmission and sale, and that the Commission should have jurisdiction over "all facilities for such transmission, sale and/or production of energy by any means and over all facilities connected therewith as parts of a system of power transmission situated in more than one state * * *". Hon. Clyde

L. Seavey, Chairman of the House Committee on Interstate and Foreign Commerce, stated in respect to the House bill, "The new Title II of this Act is designed to secure [fol. 1137] coordination on a regional scale of the nation's power resources and to fill the gap in the present state regulation of electric utilities. It is conceived entirely as a supplement to, and not as a substitution for State Regulation." See Hearings on H. R. 5423 before the House of Representatives Committee on Interstate and Foreign Commerce, 74th Cong., 1st Sess. Part I, p. 384. As Jersey Power states, there was opposition to this bill and to the corresponding bill introduced in the Senate. The opposition took the position that proposed legislation should be confined to matters beyond the power of state regulatory agencies. See Hearings, Committee on Interstate and Foreign Commerce, House of Representatives, 74th Cong., 1st Sess., H. R. 5423, Part 3, p. 1623 ff. Thereafter the Senate Committee in charge of the legislation in that body reported out a new bill, S. 2796, Sections 201(a) and (b) of which were comparable to Section 201(a) of S. 1725. These new sections declared the business "• • • of generating, transmitting, and selling electric energy for ultimate distribution to the public is affected with a public interest", and declared also that federal regulation of the transmission and sale of electric energy in interstate commerce "and [of] the generation of electric energy for such transmission and sale • • •" was necessary in the public interest. Subsection (a) of the new Senate bill further stated that it was the policy of Congress to extend federal regulation to those matters which could not be regulated by the states and to assist the states in the exercise of their regulatory powers without impairing or diminishing the authority of any state commission. Section 201(b) of S. 2796 provided that the provisions of Part II should be applied to the transmission of electric energy, to its sale at wholesale in interstate commerce, and, "to the production of electric energy for such transmission or sale." It stated that the Commission should have jurisdiction over all facilities "for such production, transmission or sale of electric energy by any means and over all facilities connected therewith as parts of a system of power transmission situated in more than one state, except facilities used only for the production or [fol. 1138] transmission of electric energy in intra state commerce or in local distribution • • •".

It is to be noted that in S. 2796 there were inserted for the first time provisions protecting the regulatory powers of the states. Generating facilities employed for the creation of electricity to be used in interstate commerce remained subject to the Commission's jurisdiction as did all facilities connected with such generating facilities as parts of interstate transmission systems.

In the report of the Committee on Interstate Commerce submitted to the Senate by Senator Wheeler (See S. Rep. No. 621, 74th Cong., 1st Sess. pp. 17, 18 and 19) it is stated; "The new part 2 of the Federal Water Power Act would constitute the first assertion of Federal jurisdiction over this major interstate public utility. The decision of the Supreme Court in Public Utilities Commission v. Attleboro Steam & E. Co. (273 U. S. 83) placed the interstate wholesale transactions of the electric utilities entirely beyond the reach of the States. Other features of this interstate utility business are equally immune from State control either legally or practically.

* * * * * * * * *

"* * * The revision has also removed every encroachment upon the authority of the States. The revised bill would impose Federal regulation only over those matters which cannot effectively be controlled by the States. The limitation on the Federal Power Commission's jurisdiction in this regard has been inserted in each section in an effort to prevent the expansion of Federal authority over State matters * * *"

Thereafter in the House of Representatives alterations were insisted upon and Sections 201(a) and (b) of the Act were set forth substantially in their present form. It will be noted that in the House amendments jurisdiction of the Commission over generating facilities and "facilities connected therewith as parts of a system of power transmission situated in more than one state" were not expressly included.

[fol. 1139] The report accompanying the bill in the House (74th Cong., 1st Sess. House Report No. 1318) offered by Representative Rayburn, states, pp. 7 and 8: "The new parts are designed to meet the situation which has been created by the recent rapid growth of electric utilities along interstate lines. The percentage of electric energy generated in the United States that was transmitted across State lines increased from 10.7 in 1928 to 17.8 in 1933. The amount of energy transmitted in interstate commerce in

1933 was greater than all of the energy generated in the country in 1913. Under the decision of the Supreme Court of the United States in Public Utilities Commission v. Attleboro Steam & E. Co. (273 U. S. 83), the rates charged in interstate wholesale transactions may not be regulated by the States.

* * * * * * *

"The bill takes no authority from State commissions and contains provisions authorizing the Federal Commission to aid the State commissions in their efforts to ascertain and fix reasonable charges. Provision is made for joint boards composed of members of State commissions which may be used for this purpose. The new parts are so drawn as to be a complement to and in no sense a usurpation of State regulatory authority and contain throughout directions to the Federal Power Commission to receive and consider the views of State commissions. Probably, no bill in recent years has so recognized the responsibilities of State regulatory commissions as does title II of this bill."

The statement of the House Conferees accompanying the Conference Report upon S. 2796 offered by Representative Rayburn, Chairman of the House Conferees, (74th Cong., 1st Sess., House Report No. 1903, p. 74) says, "The Senate bill in section 201(a) contained a somewhat more lengthy declaration of policy than the House amendment, the only material difference being that the House amendment contained no reference to 'generation' of electric energy which appeared in the Senate bill. The conference substitute follows the language of the House amend- [fol. 1140] ment but inserts a clause relating to generation to the extent regulation thereof is provided for in this part and the part next following. The House amendment and conference substitute also makes reference to the 'sale of electric energy at wholesale in interstate commerce' which reference did not appear in the Senate bill. The same general differences between the Senate bill and the House amendment also appear in section 201(b) and the language of the House amendment has been followed with a clarifying phrase added to remove any doubt as to the Commission's jurisdiction over facilities used for the generation and local distribution of electric energy to the extent provided in other sections of this part and the part next following."

As we have said Section 201(a) of the Act states ex-

plicitly that the federal regulation proposed by the Act is intended "to extend only to those matters which are not subject to regulation by the states", and that Section 201(b) says with equal clarity that the Commission "shall not have jurisdiction * * * over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of such electric energy in intrastate commerce, * * *." Generation of electricity, its local distribution or its transmission in intrastate commerce are not within the purview of the Act or the jurisdiction of the Commission. But the contentions of the petitioners in respect to the effect of the legislative history of Part II lose much of their potency when we contemplate the provisions of Section 201(c) which state that electricity shall be held to be transmitted in interstate commerce if transmitted from a state and consumed outside that state. Section 201(c) of the Act was in the original bill submitted to the Senate and the House of Representatives and came into the law substantially without change. That section fits well into the law as laid down by the decision of the Supreme Court in Public Utilities Comm. v. Attleboro Steam and Electric Co., 273 U. S. 83, and takes away, we think, the force of the argument of unconstitutionality made on behalf of the petitioners, at least insofar as the application of Section 201 of the Act to Jersey Central [fol. 1141] is concerned. The provisions of Part II were intended by Congress to be applied only to electrical energy transmitted in interstate commerce and in this field there can be no doubt that Congress possesses the constitutional right to legislate. See Northern Securities Company v. United States, 193 U. S. 197.

It follows that what we are concerned with in the appeals at bar is ascertaining the intention of Congress. We think that Congress intended to impose regulation upon those public utilities which operate facilities for the transmission of electricity in interstate commerce, transmission in interstate commerce being defined as electricity transmitted from a state and consumed at any point outside its borders.

An objection raised by the petitioners to the jurisdiction of the Commission lies in the small quantities of electricity which pass from Jersey Central's generating plant at South Amboy through the Public Service bus-bar into the lines of the Staten Island Company and the fact that this

electricity was not paid for by any consideration passing from the Staten Island Company to Jersey Central. There were no commercial transactions whatsoever between the Staten Island Company and Jersey Central. Jersey Power takes the position that insofar as economy-flow current passed between Jersey Central and Public Service on the one hand and Public Service and Staten Island on the other, the respective arrangements for this current had no relation to or effect upon the non-participating company and that Jersey Central supplied only such current as Public Service otherwise would generate for its own use.

Some part of the electricity passing from the Jersey Central system to the Public Service system moved in interstate commerce and reached the Staten Island Company. That electric energy was transmitted in interstate commerce within the meaning of Section 201(e) if the words of the subsection be applied literally. The facilities of Jersey Central were in fact employed for this transmission. This was not an accident. Once the circuit between the Jersey Central generating plant and the Staten Island Company [fol. 1142] was closed, inevitably electricity flowed from Jersey Central to the Staten Island Company. That result was not only not unexpected, it was unavoidable. The fact that Jersey Central sold this electricity to Public Service rather than to Staten Island does not serve to put the flow out of commerce. Once electricity flowed from the Jersey Central generating plant to the Staten Island Company, commercial transactions between the three companies under their respective contractual relations and arrangements followed. This was interstate commerce within the meaning of the Commerce Clause. For an analogy see the decisions of the Supreme Court in Eureka Pipe Line Company v. Hallanan, 257 U. S. 265, and United Fuel Gas Co. v. Hallanan, 257 U. S. 277. We do not think that it is important that the electricity which was transmitted is designated as emergency, economy-flow, incidental or slop-over current. It is electricity which is transmitted from New Jersey to New York when circuits are closed. We conclude, therefore, that the transmission of current which reached the Staten Island Company by Jersey Central over its facilities was such transmission as is described in the second sentence of Section 201(b). It follows that Jersey

Central is a public utility within the meaning of Section 201(e) of the Act.

As we have indicated it was the intention of Congress in passing Part II of the Act to extend federal regulation to the transmission of electricity in interstate commerce. But by Section 201(a) Congress made it plain that such regulation was to extend only to those matters which were not subject to regulation by the states. The petitioners point out that the transfer of stock with which we are concerned was approved by the Board of Public Utility Commissioners of New Jersey in the exercise of the authority granted to the Commissioners by the law of New Jersey, R. S. 1937, 48:2-13.

The sale of the Jersey Central stock to Jersey Power properly was subject to regulation by the State of New Jersey because Jersey Central was engaged in intrastate commerce in that it supplied electricity to local consumers [fol. 1143] within the State of New Jersey. The sale was subject to the jurisdiction of the Federal Power Commission because Jersey Central is a public utility within the meaning of Section 201(e). We must consider the point of dual control but only insofar as it may be applicable to the appeals at bar, in view of the provisions of Section 201(a) restricting federal regulation, and the legislative history of Part II of the Act. The authority of the Board of Public Utility Commissioners of New Jersey must be deemed to be paramount in those matters which may affect the intrastate transmission of electricity and the authority of the Federal Power Commission must be deemed to be governing as to those matters which may affect the transmission of electric energy in interstate commerce. We cannot presume a conflict between the two regulatory bodies upon the issue of whether or not Jersey Power should have bought the stock of Jersey Central. No conflict is shown upon the present record and none may ever come into existence.

The determination of the Commission is affirmed.

A true Copy:
Teste:

——— ———, Clerk of the United States Circuit Court of Appeals for the Third Circuit.

[fol. 1144] IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

No. 7256

JERSEY CENTRAL POWER & LIGHT COMPANY, Petitioner,

vs.

FEDERAL POWER COMMISSION, Respondent

This cause came on to be heard on the transcript of record from the Federal Power Commission, and was argued by counsel.

On consideration whereof, it is now here ordered, adjudged and decreed by this Court that the determination of the said Federal Power Commission in this cause be, and the same is hereby affirmed.

John Biggs, Jr., Circuit Judge.

May 25, 1942.

Endorsements--Order Affirming Determination of the Federal Power Commission. Received & Filed May 25, 1942. Wm. P. Rowland, Clerk.

[fol. 1145] IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

No. 7257

NEW JERSEY POWER & LIGHT COMPANY, Petitioner,

vs.

FEDERAL POWER COMMISSION, Respondent

This cause came on to be heard on the transcript of record from the Federal Power Commission, and was argued by counsel.

On consideration whereof, it is now here ordered, adjudged and decreed by this Court that the determination of the said Federal Power Commission in this cause be, and the same is hereby affirmed.

John Biggs, Jr., Circuit Judge.

May 25, 1942.

Endorsements—Order Affirming Determination of the Federal Power Commission. Received & Filed May 25, 1942. Wm. P. Rowland, Clerk.

[fol. 1146] IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

No. 7256. October Term, 1939

JERSEY CENTRAL POWER & LIGHT COMPANY, Petitioner,

vs.

FEDERAL POWER COMMISSION, Respondent

No. 7257. October Term, 1939

NEW JERSEY POWER & LIGHT COMPANY, Petitioner,

vs.

FEDERAL POWER COMMISSION, Respondent

ORDER

CORAM: Biggs, Maris and Goodrich, Circuit Judges

And now, to wit, this 11th day of July, 1942,

It is ordered that the opinion filed herein on May 25, 1942 be and the same hereby is amended by striking from the third line of the second paragraph on page 2 of the printed copy thereof the letter "1" following the figure "5"; and by striking the letter "c" from the parentheses following the figure "1" in the third line of page 25 of the printed copy of the opinion and substituting in lieu thereof the letter "e".

For the Court.

John Biggs, Jr., U. S. Circuit Judge.

Order Amending Opinion. Received & Filed July 11, 1942.

Wm. P. Rowland, Clerk.

[fol. 1147] UNITED STATES OF AMERICA,
Eastern District of Pennsylvania,
Third Judicial Circuit, sct.:

I, Wm. P. Rowland, Clerk of the United States Circuit Court of Appeals for the Third Circuit, do hereby certify the foregoing to be a true and faithful copy of the original Transcript of record (Volume II) and proceedings in this Court in the cases of Jersey Central Power & Light Company, Petitioner, vs. Federal Power Commission, Respondent, No. 7256; New Jersey Power & Light Company, Petitioner, vs. Federal Power Commission, Respondent, No. 7257, on file, and now remaining among the records of the said Court, in my office.

In testimony whereof, I have hereunto subscribed my name and affixed the seal of the said Court, at Philadelphia, this 30th day of July in the year of our Lord one thousand nine hundred and forty-two, and of the Independence of the United States the one hundred and sixty-seventh.

Wm. P. Rowland, Clerk of the U. S. Circuit Court of Appeals, Third Circuit. (Seal.)

[fol. 1148] SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1942

No. 299

ORDER ALLOWING CERTIORARI—Filed October 12, 1942

The petition herein for a writ of certiorari to the United States Circuit Court of Appeals for the Third Circuit is granted.

And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.

[fol. 1149] SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1942

No. 329

ORDER ALLOWING CERTIORARI—Filed October 12, 1942

The petition herein for a writ of certiorari to the United States Circuit Court of Appeals for the Third Circuit is granted.

And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.

No. 299

Office - Supreme Court, U. S.
FILED
AUG 13 1942
CHARLES ELMORE CROPLEY
CLERK

IN THE

Supreme Court of the United States

JERSEY CENTRAL POWER & LIGHT COMPANY,
Petitioner,

vs.

FEDERAL POWER COMMISSION,
Respondent.

PETITION FOR WRIT OF CERTIORARI DIRECTED TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT AND BRIEF IN SUPPORT:

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Dated August 10, 1942.

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IN THE

Supreme Court of the United States

JERSEY CENTRAL POWER & LIGHT COMPANY,

Petitioner,

vs.

FEDERAL POWER COMMISSION,

Respondent.

PETITION FOR WRIT OF CERTIORARI DIRECTED TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT AND BRIEF IN SUPPORT.

To the Honorable the Chief Justice and Associate Justices of the Supreme Court of the United States:

Jersey Central Power & Light Company, the petitioner herein, is a corporation organized and existing under the laws of the State of New Jersey, and hereby petitions this Honorable Court for a writ of certiorari to be issued to review the judgment entered in the United States Circuit Court of Appeals for the Third Circuit on May 25, 1942 in the above entitled cause, and respectfully shows:

Summary Statement of Facts.

1. The respondent Federal Power Commission (hereinafter usually referred to as the "Commission") entered an order pursuant to the provisions of section 309 of the Federal Power Act of 1935 (hereinafter usually referred

to as "the Act") (c. 687, Tit. II, sec. 213; 49 Stat. 858; 16 U. S. C. A., § 825) concerning the acquisition by New Jersey Power & Light Company, a corporation of New Jersey, of 341,350 shares of the common stock of petitioner without authorization of the Commission and allegedly in violation of sec. 203(a) of the Act (49 Stat. 849, 16 U. S. C. A., §824b(a)). The section of the Act last cited provides that no public utility as defined by the Act, shall purchase or acquire any security of any other public utility, as defined by the Act, without having first secured an order of the Commission authorizing it to do so. The petitioner intervened in the proceedings before the Commission and alleged that it was not a public utility within the meaning of the Act. The determination of the Commission resulted in a finding that petitioner was a "public utility" within the provisions of the Act and that the acquisition of petitioner's stock by New Jersey Power & Light Company was contrary to the provisions of the Act, said determination being dated July 18, 1939. Timely application for rehearing was made by petitioner before the respondent Commission, which application was denied by order of the Commission dated September 15, 1939. A petition for review from the Commission's order and determination was taken to the United States Circuit Court of Appeals for the Third Circuit, which resulted in an opinion and a judgment of the Court filed May 25, 1942 which affirmed the determination of the Commission (Record, pp. 1113, 1135).

2. Petitioner owns and operates an electric and gas business in the State of New Jersey and is a public utility as defined by the law of the State of New Jersey (N. J. S. A. 48:2-13). It contended before the Commission and before the Circuit Court of Appeals that it was not a public utility as defined by section 201(e) of the Act (49 Stat.

848, 16 U. S. C. A., § 824(e)) and that the facts before the Commission and before the Circuit Court of Appeals upon review did not bring petitioner within the provisions of the Act.

3. Petitioner serves electricity or gas or both in about 300 municipalities, all in the State of New Jersey, and does not maintain any connections or electric facilities which either extend to or cross over state lines nor does it possess franchise rights which extend to or cross state lines. Petitioner maintains an electric connection with another non-affiliated electric and gas corporation, namely, Public Service Electric & Gas Company (hereinafter called "Public Service") which is a public utility as defined by the Act. Such connection is wholly within the State of New Jersey and petitioner interchanges electric energy over such connection with Public Service. The electric transmission facilities of this connection extend from petitioner's power plant at South Amboy, New Jersey to the south bank of the Raritan River, a distance of seven-eighths of a mile. At that point there is a connection with a submarine cable of Public Service which crosses the Raritan River to Perth Amboy in New Jersey and from there proceeds to the Mechanic Street Substation of Public Service in Perth Amboy. The connecting lines enter the Mechanic Street Substation through metering equipment and switches and are connected with the bus bar at that station. There are about ten connections to the bus bar including a connection with a transmission line extending between Public Service to the facilities of Staten Island Edison Company (hereinafter called "Staten Island") in the State of New York. Electric energy is interchanged between Staten Island and Public Service across the Arthur Kill through transmission facilities which are concededly in interstate commerce.

The principal function of the bus bar and its connections thereto is to serve the requirements of Public Service in New Jersey. The transmission facilities between petitioner and Public Service are maintained for two purposes, one for the transmission of electric energy for emergency uses pursuant to a written contract dated March 24, 1931 (Intervener's Exhibit No. 2, offered at p. 275 of Record, printed at p. 1039) whereby such emergency energy is available only in case of breakdown in either system, the other for the interchange of economy flow energy. Economy flow energy is defined as energy generated and supplied by one company to another when the receiving company has sufficient generating facilities to generate that electricity for itself but elects to receive it from the other company because that company can generate and deliver it more cheaply than the purchasing company. This electric energy is supplied by the petitioner to Public Service pursuant to an oral agreement upon a day to day basis and the price is calculated by a formula which consists in taking half of the cost of the electricity to the generating company and adding to that figure half of what the cost would have been if the purchasing company had generated the electricity (Opin. below, Record, pp. 1116, 1117). The purpose of such interchange is solely a matter of economy of operation. The interchange of economy flow energy between petitioner and Public Service was of frequent occurrence and hence the switches on the transmission facilities were normally in a closed position.

4. Between Public Service and Staten Island the switches were in a closed position on the transmission facilities to keep those two systems in balance in order to enable Staten Island to obtain emergency energy as and when required. The result of such a physical situation in the

facilities permitted energy to flow back and forth over the connections when such energy was not on order. This flow of energy is commonly called "slopover" or "incidental" energy. It is described as an electrical phenomenon which consists of an instantaneous involuntary ebb and flow over the physical connections otherwise unused between two systems. It is uncontrolled and the flow of the current is excited when the systems become "out of balance" or other unusual conditions take place in one company system or the other (Opinion below, Record, p. 1117). The testimony showed that between January 1, 1937 and September 6, 1938, 25,500 readings were made and recorded in the log reflecting such flow of energy. A selection of 184 readings from that group was taken and it was found by the Commission that 24 of these 184 readings indicated that such flow of electric energy generated by the petitioner entered the facilities of Staten Island. Under a somewhat similar situation it was also found on a few occasions such energy generated by the Staten Island passed through the Mechanic Street bus bar of Public Service and entered the facilities of the petitioner.

5. There are no contractual or commercial relations between petitioner and Staten Island for the transmission of electric energy. Petitioner sells no electric energy directly in interstate commerce. Apart from its own local customers it sells electricity only to Public Service and delivers that electricity to Public Service wholly within the State of New Jersey (Opinion below, Record, p. 1128). The transmission of electric energy between petitioner and Public Service has no relation to the demands or requirements of Staten Island and is wholly independent of any contractual relations that exist between Public Service and Staten Island (Opinion below, Record, p. 1133). The

only manner in which petitioner's energy can be identified in Staten Island facilities is when the flow of electricity is away from the bus bar of the Mechanic Street Station on all lines except petitioner's and petitioner's energy is flowing toward the bus bar. In that situation petitioner's energy flows out through all the connections on the bus bar, through the facilities of Staten Island and the interconnections with other points of Public Service system (Opinion below, Record, p. 1119).

6. Upon the foregoing state of facts the respondent Commission found and determined that the petitioner owned and operated transmission facilities utilized for the transmission of electric energy in interstate commerce and that the petitioner was a public utility within the provisions of section 201(e) of the Act (49 Stat. 848, 16 U. S. C. A. §824 (e)). The United States Circuit Court of Appeals, upon review, affirmed the determination of the Commission.

7. Petitioner, a public utility of the State of New Jersey, is wholly subject to regulation by the Board of Public Utility Commissioners of New Jersey (N. J. S. A. 48:2-13). The transmission facilities and the transmission of energy between petitioner and Public Service are both subject to regulation by the New Jersey Commission; and regulation by the State of New Jersey also extends over all other facilities and many other activities and operations of petitioner. In fact, the stock acquisition by New Jersey Power & Light upon which this proceeding was originally instituted by the Federal Power Commission was approved by the New Jersey Commission. The Federal Power Act provides that federal regulation "shall extend only to those matters which are not subject to regulation by the states." (sec. 201(a), 49 Stat. 847, 16 U. S. C. A. §824 (a)). The decision of the Circuit Court of Appeals for the Third

Circuit is in error in finding that petitioner is subject to the jurisdiction of respondent Commission solely by reason of the maintenance of the transmission facilities between petitioner and Public Service which extend but seven-eighths of a mile entirely within New Jersey and which facilities are subject also to regulation by the State of New Jersey. The effect of the decision of the Circuit Court of Appeals is to subject petitioner to the prohibitions and commands of the Federal Power Act. Without the approval of the Commission, petitioner may not sell, lease or otherwise dispose of its facilities, merge or consolidate with any other defined utility, purchase or acquire securities of another public utility. Petitioner may not, without approval, have common bank or other utility directors and must keep its accounts and file annual or other periodic reports as the Commission may direct, and as well petitioner is subject to various other requirements of the Act and rules and regulations which the Commission may adopt. Failure to comply with the Act and rules or orders of the Commission may subject petitioner to heavy fines and penalties (See footnote to Opinion below, Record, p. 1122).

Jurisdictional Statement.

(a) Pursuant to section 313(b) of the Federal Power Act of 1935 (c. 687 Tit. II, sec. 213, 49 Stat. 860, 16 U. S. C. A. §825*l*(b)) the jurisdiction of this Court is rested on sec. 240 of the Judicial Code as amended by the Act of February 13, 1925 (sec. 1, 43 Stat. 938, 28 U. S. C. A., §347).

(b) The statute, the application or validity of which is involved, is the Federal Power Act (August 26, 1935, c. 687; 49 Stat. 847, 16 U. S. C. A. §791(a)) and particularly Parts II and III thereof (49 Stat. 847-863, 16 U. S. C. A. §§824-825r).

(c) The date of the decree of the United States Circuit Court of Appeals for the Third Circuit here sought to be reviewed is May 25, 1942.

Questions Presented.

1. Whether petitioner, whose business is wholly intrastate and who neither sells nor transmits electricity directly in interstate commerce, becomes a "public utility" within the meaning of the Federal Power Act in transmitting electric energy wholly within the State of New Jersey to Public Service, if Public Service has a connection in the same state with Staten Island over which it, independently of petitioner, sells and transmits electric energy in interstate commerce and scientific studies of electric phenomena indicate that on relatively few occasions, under peculiar operating conditions and wholly beyond the control of petitioner, relatively small quantities of electric energy generated by petitioner were found in the system of Staten Island in the adjoining state.

2. Whether an electric public utility wholly subject to regulation by a state is excluded from federal regulation by the terms of section 201(a) and (b) of the Act (49 Stat. 847; 16 U. S. C. A., § 824(a) and (b)).

3. Whether an interpretation applying the provisions of the Act to one who transmits and sells energy wholly within a state is contrary to the provisions of Article I, sec. 8 of the United States Constitution, and reserved powers of the states.

4. Whether section 201(a) of the Act (49 Stat. 847; 16 U. S. C. A., §824) restricts or limits the scope of the

definition of interstate commerce in section 201(c) of the Act (*idem*), and also limits the scope of the definition of "public utility" in section 201(e) of the Act (*idem*) and the consequent jurisdiction of the Commission with respect thereto.

Reasons for Granting the Writ.

1. The decision of the Circuit Court of Appeals involves a question of federal law which has not been, but should be, settled by this Court. In the administration of the Act conflict of jurisdiction arises between state and federal authority and will in the future arise in matters of regulation and jurisdiction over electric companies situated similarly to the petitioner herein.

2. The decision of the Circuit Court of Appeals is in conflict with, and untenable in the light of, prior decisions of this Court on similar questions involving the interpretation of statutes dealing with congressional grant of authority over commerce and persons engaged therein.

Federal Trade Commission v. *Bunte Bros.*, 312 U. S. 349, 351, 61 S. Ct. 580, 85 L. ed. 881;
Maurer v. *Hamilton*, 309 U. S. 598, 614, 60 S. Ct. 726, 734, 84 L. ed. 969, 980;
Atchison, T. & S. F. Ry. Co. v. *Railroad Com.*, 283 U. S. 380, 391, 51 S. Ct. 553, 75 L. ed. 1128, 1136.

This Court recently said:

> "When in order to protect interstate commerce Congress has regulated activities which in isolation are merely local, it has normally conveyed its purpose explicitly." *Federal Trade Com.* v. *Bunte Bros.*, *supra*, at p. 351.

In the Federal Power Act Congress said that the regulation by the Commission should "extend only to those matters which are not subject to regulation by the states". The decision of the Circuit Court of Appeals extended the jurisdiction of the Commission to matters which are regulated by the State of New Jersey.

3. The decision of the Circuit Court of Appeals states that the Commission has paramount authority over matters affecting interstate commerce (Record, p. 1134). Sections 201(a) and (b) of the Act (49 Stat. 847, 16 U. S. C. A., §§ 824(a) and (b)) confer jurisdiction on the Commission over transmission, and facilities used in transmission, "in interstate commerce." The Act gives jurisdiction in defined transactions which constitute interstate commerce and does not extend to matters which merely "affect interstate commerce." By construing the words "in interstate commerce" so as to mean "affecting interstate commerce" the decision below has decided an important question of federal law (which has not been, but should be, passed upon by this Court) in a way probably in conflict with applicable decisions of this Court.

Federal Trade Commission v. *Bunte Bros.*, *supra*,

and see

Kirschbaum v. *Walling*, U. S. , 62 S. Ct. 1116, 1119, 86 L. ed. (Adv. Ops.) 1054, 1058 (June 1, 1942).

4. The decision of the Circuit Court of Appeals is in conflict with the decisions of this Court in defining interstate commerce within the provisions of the United States Constitution. The decision below found that petitioner sold no electricity directly in interstate commerce and no

commercial relations existed between petitioner and Staten Island (Record, pp. 1128, 1133), but despite these findings the decision held that petitioner was engaged in interstate commerce within the provisions of the Act. The decision of the Circuit Court of Appeals in this respect is in conflict with the provisions of the United States Constitution and the decisions of this Court concerning the power of Congress to regulate commerce.

> *McCluskey* v. *Marysville & N. R. Co.*, 243 U. S. 36, 39, 37 S. Ct. 374, 375, 61 L. ed. 578, 580;
> *Pub. Utilities Com.* v. *Landon*, 249 U. S. 236, 245, 39 S. Ct. 268, 270, 63 L. ed. 577, 586.

Among decisions of this Court stating the principle that the authority of the Federal Government may not be extended so as to destroy the distinction between commerce "among the several states" and the internal concerns of a state are *National L. R. Board* v. *Jones & Laughlin S. Corp.*, 301 U. S. 1, 57 S. Ct. 615, 81 L. ed. 893; *Superior Oil Co.* v. *Mississippi*, 280 U. S. 390, 50 S. Ct. 169, 74 L. ed. 504.

5. The decision of the Circuit Court of Appeals states that the authority of the state "must be deemed to be paramount in those matters which may affect the intrastate transmission of electricity and the authority of the Federal Power Commission must be deemed to be governing as to those matters which may affect the transmission of electric energy in interstate commerce" (Record, p. 1134). As to matters which affect both intrastate and interstate commerce, such as the securities acquisition here involved the Court below held that both the state and the federal commissions had jurisdiction (*idem*, loc. cit.). The effect of such decision permits a dual jurisdiction over certain matters which affect both petitioner's admittedly local

business and its allegedly interstate business such as rates, accounting, issuance of securities, selection of directors and other matters. The decision in this respect is in conflict with the decision of this Court in the *Shreveport* case (*Houston E. & W. T. R. Co.* v. *United States*, 234 U. S. 342, 58 L. ed. 1341, 34 S. Ct. 838) and cases applying the doctrine thereof, which states that the federal authority is paramount to that of the state in matters affecting interstate commerce regardless of the effect on intrastate commerce.

Conclusion.

For the reasons herein set forth it is respectfully submitted that this petition should be granted.

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BRIEF IN SUPPORT OF PETITION FOR WRIT OF CERTIORARI.

(Emphasis Supplied.)

Opinions Below.

The determination by the Commission was dated July 1939, is printed at pp. 936 *et seq.* of the Record and is reported unofficially at 30 P. U. R. (N. S.) 33, *sub. nom. Re New Jersey Power & Light Co. et al.* The opinion of the Circuit Court of Appeals (Circuit Judges Biggs, Maris and Goodrich) is dated May 25, 1942, was written by Judge Biggs, is printed at p. 1113 *et seq.* of the Record and is not yet otherwise reported.

Jurisdiction.

Pursuant to the provisions of section 313(b) of the Federal Power Act of 1935 (c. 687, Tit. II, sec. 213; 49 Stat. 860; 16 U. S. C. A. §8251 (b)) the jurisdiction of this court is rested on section 240 of the Judicial Code as amended by the Act of February 13, 1925 (sec. 1, 43 Stat. 938; 28 U. S. C. A. §347).

The statute, the applicability and validity of which is here involved, is the Federal Power Act of 1935 (*supra*) and particularly Parts 2 and 3 thereof (49 Stat. 847-863; 16 U. S. C. A. §§824-825r).

The date of the judgment of the United States Circuit Court of Appeals for the Third Circuit here sought to be reviewed is May 25, 1942.

Petitioner asserted before the Commission that it was not a "public utility" as defined by the Act. The petition to the court below for review of the Commission's deter-

mination alleged among other things that the determination of the Commission that petitioner was such a public utility was contrary to and in violation of the express terms of the Act and established rules of construction (Record, p. 1097, par. 6), and in violation of petitioner's constitutional rights in that authority to regulate petitioner's transmission of electric energy and facilities therefor had not been conferred on the United States by the Commerce Clause of the Constitution but had been specifically reserved to the State of New Jersey by the Tenth Amendment to said Constitution (*id.* p. 1099, par. 9).

Facts.

The facts are stated in the petition herein (*ante*, pp. 1-7). We emphasize, however, that the Court below found among other things that the use of the facilities between Jersey Central and Public Service is governed by a contract executed by the companies dated March 24, 1931 and an oral agreement pursuant thereto (Record, p. 1116). It was not until August 26, 1935 that the Act became law. The Court below also found "Jersey Central in fact is principally engaged in the retail sale of electricity to numerous individual customers in its territory" (*id.* p. 1117) and that the amount of electricity generated by Jersey Central and ultimately received by Staten Island, measured in terms of electricity generated by large electric utility systems was small (*id.* p. 1121). The Court below further found that it was "beyond dispute that Jersey Central sells no electricity directly in interstate commerce. So far as this record shows, aside from its own local customers, Jersey Central sells electricity only to Public Service and delivers that electricity to Public Service wholly within the State of New Jersey" (*id.* p. 1128).

SUMMARY OF ARGUMENT.

POINT I.

The decision below involves a novel, important question of Federal Law concerning the scope of Federal jurisdiction.

POINT II.

The decision below conflicts with decisions of this Court as to the interpretation of statutes delegating authority over commerce and persons engaged therein.

POINT III.

The decision below is in conflict with decisions of this Court defining "commerce * * * among the several states" as used in the Constitution of the United States.

POINT IV.

The decision of the Court below is in conflict with the decisions of this Court affecting the relationship between State and Federal authority.

ARGUMENT.

POINT I.

The decision below involves a novel, important question of Federal law concerning the scope of Federal jurisdiction.

Petitioner is a public utility of the State of New Jersey as defined by the statutes of said State (N. J. S. A. 48:2-13). As such it is subject to regulation and is regulated by the Board of Public Utility Commissioners of such State. The authority and jurisdiction of said Board is extremely

broad in its scope. Among other things said Board is empowered to investigate and regulate matters of accounting, financing, rate making, extension of facilities, adequacy and safety of service, disposition of property, acquisition of property of other public utilities, declaration of dividends, holding company management contracts and other miscellaneous matters (N. J. S. A. 48:2-13, *et seq.*, 48:3-1, *et seq.*). The Federal Power Commission, pursuant to the provisions of the Act, the applicability of which is here involved, is authorized to investigate and regulate similar matters involving public utilities as defined in said Act (sec. 201(e), 49 Stat. 848; 16 U. S. C. A. §824(e)).

State regulation as imposed by the State of New Jersey is in general similarly imposed upon electric public utilities operating in other states. Many companies so regulated are situated similarly to the petitioner in that their entire business is conducted wholly within the limits of a single state, but, because of operating arrangements whereby electricity generated by them is interchanged with other companies operating wholly or largely within the same state, some electricity so generated may on infrequent occasions be consumed in another state.

It is important that petitioner and such companies as well as the state regulatory bodies having jurisdiction over them should know the lawful limits of such jurisdiction and its relationship to the jurisdiction of the Federal Power Commission. It is also important that the Federal Power Commission should know the limits of its jurisdiction and its relation to the authority exercised by such state regulatory bodies.

The importance of the scope of Federal jurisdiction was recognized by Congress in the consideration of the legislation resulting in the final adoption of the Act. The Court

below set forth in its opinion numerous quotations explanatory of the legislative history of the Act (Record, p. 1129, *et seq.*). For convenience several such quotations follow:

Hon. Clyde L. Seavey, Chairman of the House Committee on Interstate and Foreign Commerce, stated in respect to the House bill:

> "The new Title II of this Act is designed to secure coordination on a regional scale of the nation's power resources and to fill the gap in the present state regulation of electric utilities. It is conceived entirely as a supplement to, and not as a substitution for State Regulation." (Hearings on H. R. 5423 before the House of Representatives Committee on Interstate and Foreign Commerce, 74th Cong., 1st Sess., Part I, p. 384.)

In the report of the Committee on Interstate Commerce submitted to the Senate by Senator Wheeler (See S. Rep. No. 621, 74th Cong., 1st Sess., pp. 18 and 19) it is stated:

> ". . . The revision has also removed every encroachment upon the authority of the States. The revised bill would impose Federal regulation only over those matters which cannot effectively be controlled by the States. The limitation on the Federal Power Commission's jurisdiction in this regard has been inserted in each section in an effort to prevent the expansion of Federal authority over State matters. . . ."

The report accompanying the bill in the House 974th Cong., 1st Sess., House Report No. 1318) offered by Representative Rayburn, states, page 8:

> "The new parts are so drawn as to be a complement to and in no sense a usurpation of State regulatory authority and contain throughout directions to the Federal Power Commission to receive and

> consider the views of State commissions. Probably, no bill in recent years has so recognized the responsibilities of State regulatory commissions as does title II of this bill."

Congress having recognized the importance of defining the respective limits of the authority and jurisdiction of the State and Federal regulatory bodies, it is respectfully submitted that this Court should not permit the decision of the Court below to go unreviewed in its determination of this novel question. As this Court has heretofore stated:

> "Perhaps in no domain of public law are general propositions less helpful and indeed more mischievous than where boundaries must be drawn under a federal enactment between what it has taken over for administration by the central Government and what it has left to the States. To a considerable extent the task is one of accommodation as between assertions of new federal authority and historic functions of the individual states. The expansion of our industrial economy has inevitably been reflected in the extension of federal authority over economic enterprise and its absorption of authority previously possessed by the States. Federal legislation of this character cannot therefore be construed without regard to the implications of our dual system of government." *Kirschbaum* v. *Walling*, U. S. , 62 S. Ct. 1116, 1118, 86 L. Ed. (Adv. Ops.) 1054, 1057 (June 1, 1942).

The importance of the decision below is thus made clearly apparent. Congress recognized the importance of the impact of the Act on Federal-State relations and this Court has recognized the similar importance of like questions previously presented and the importance to economic enterprise generally of having uncertainties of regulation settled.

POINT II.

The decision below conflicts with decisions of this Court as to the interpretation of statutes delegating authority over commerce and persons engaged therein.

The Court below properly recognized that its particular concern was "ascertaining the intention of Congress" (Record, p. 1132). This Court has frequently stated the canons of construction applicable in such investigation. Petitioner contends that the Court below failed to apply these rules, which require a court in interpreting statutes whereby Congress has delegated authority over commerce and persons engaged therein to restrict the delegation of power so as to exclude the assertion of authority over matters which in isolation are merely local unless Congress has expressly stated its intention to regulate such activities.

Federal Trade Com. v. *Bunte Bros.*, 312 U. S. 349, 351, 61 S. Ct. 580, 85 L. ed. 881, 883;

Kirschbaum v. *Walling*, U. S. , 62 S. Ct. 1116, 1119, 86 L. ed. (Adv. Ops.) 1054, 1058 (June 1, 1942);

Maurer v. *Hamilton*, 309 U. S. 598, 614, 60 S. Ct. 726, 734, 84 L. ed. 969, 980;

Atchison, T. & S. F. R. Co. v. *Railroad Com.*, 283 U. S. 380, 391, 51 S. Ct. 553, 75 L. ed. 1128, 1136.

In the first case above cited, this Court held that the Federal Trade Commission was without jurisdiction to prevent the use of alleged unfair methods of competition used in intrastate sales even though such unfair methods might adversely affect interstate commerce and handicap persons

engaged therein. Mr. Justice Frankfurter stated that when Congress, in order to protect interstate commerce has regulated activities which in isolation are merely local, it has normally conveyed its purpose explicitly and held that the statute there involved did not explicitly convey such purpose.

The Court Below Erroneously Expanded the Explicitly Conveyed Purpose of Congress.

It is petitioner's contention that not only does the statute here involved (the Federal Power Act of 1935) fail to explicitly convey a purpose to regulate "activities which in isolation are merely local" but that in fact such act expressly negatives any such intention. Congress, in delegating authority to the Federal Power Commission has declared that Federal Power Commission regulation shall "extend only to those matters which are not subject to regulation by the states" (sec. 201(a), 49 Stat. 847, 16 U. S. C. A., § 824(a)) and that the Commission shall not have jurisdiction except over facilities for "transmission of electric energy in interstate commerce," *i. e.*, electric energy "transmitted from a state and consumed at a point outside thereof" (sec. 201(b), (c), 49 Stat. 847, 16 U. S. C. A., § 824(b), (c)).

In the case of *Maurer* v. *Hamilton*, *supra*, it was held that Congress in enacting the Motor Carrier Act of 1935 had not restricted the right of the state to regulate the sizes and weight of certain types of motor carriers. The present Chief Justice, for the Court, there said (309 U. S. at 614, 60 S. Ct. at 734, 84 L. ed. at 980):

> "As a matter of statutory construction congressional intention to displace local laws in the exercise of the commerce power is not, in general, to be in-

ferred unless clearly indicated by those considerations which are persuasive of the statutory purposes."

It is petitioner's contention that among considerations which may be persuasive of the statutory purposes is the legislative history of the enactment under consideration and that examination of such history discloses congressional intent to withhold from the Federal Power Commission any power to deal with petitioner, its facilities or electric energy generated by it. Certain excerpts from Congressional reports have been heretofore set forth (*ante*, p. 17) and reference is here made to them.

Petitioner contends that the intention of Congress indicated in the legislative history of this statute is most forcefully shown by the very terms of the Act itself. Section 201 (49 Stat. 847; 16 U. S. C. A., § 824) provides in part:

"(a) It is hereby declared that the business of transmitting and selling electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation of matters relating to generation to the extent provided in this Part and the Part next following and *of that part of such business which consists of the transmission of electric energy in interstate commerce* and the sale of such energy at wholesale in interstate commerce is necessary in the public interest, *such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States.*

(b) The provisions of this Part shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, *but shall not apply to any other sale of electric energy* or deprive a State

> or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line. The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but *shall not have jurisdiction,* except as specifically provided in this Part and the Part next following, over facilities used for the generation of electric energy or *over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce,* or over facilities for the transmission of electric energy consumed wholly by the transmitter."

Thus the limitation restricting Federal jurisdiction to matters not subject to State regulation is asserted both positively and negatively. In other words, the Act is not a statute imposing such a broad scope of regulation as is created by the Fair Labor Standards Act of 1938, the Agricultural Marketing Agreement Act of June 3, 1937 or the National Labor Relations Act. The Federal Power Act was designed purposefully to limit Federal jurisdiction to a narrow field in which the several states were legally and physically impotent to act and such purpose is manifested by the terms and provisions of the Act.

The Act states that

> ". . . The Commission shall have jurisdiction over all facilities for such transmission [in interstate commerce] or sale of electric energy [in interstate commerce] but shall not have jurisdiction, except as specifically provided . . ., over facilities used . . . in local distribution or only for the transmission of electric energy in intrastate commerce" (sec. 201(b), 49 Stat. 847; 16 U. S. C. A., § 824(b)).

The intent of Congress was to fill the gap in regulation between States with respect to facilities and electric trans-

mission which cross State lines and the contractual, commercial or other relations which create or result from such transactions. The jurisdictional scope of the Act was not intended to go beyond such facilities and transmission to other purely local transactions. The statutory limitations of jurisdiction otherwise would have little or no significance. The opinion below erroneously departs from the rules of statutory construction heretofore announced by this Court.

Federal Trade Com. v. *Bunte Bros.*, 312 U. S. 349, 351, 61 S. Ct. 580, 85 L. ed. 881, 883;
Maurer v. *Hamilton*, 309 U. S. 598, 614, 60 S. Ct. 726, 734, 84 L. ed. 969, 980;
Atchison T. & S. F. R. Co. v. *Railroad Com.*, 283 U. S. 380, 391, 51 S. Ct. 553, 75 L. ed. 1128, 1136;
cf. *Kirschbaum* v. *Walling*, U. S. , 62 S. Ct. 1116, 1119, 86 L. ed. (Adv. Ops.) 1054, 1058 (June 1, 1942).

The Court Below Erred in Construing the Statute So As to Give Federal and State Regulatory Bodies Concurrent Jurisdiction Over the Subject Matter of the Appeals Below.

The Court below held that the sale of the stock which gave rise to the proceedings before the Commission "properly was subject to regulation by the State of New Jersey because Jersey Central was engaged in intrastate commerce" and that such sale also "was subject to the jurisdiction of the Federal Power Commission because Jersey Central is a public utility within the meaning of section 201(e) [49 Stat. 848, 16 U. S. C. A. §824 (e)]." Petitioner contends that such decision evidences an erroneous

construction of the Act in conflict with applicable decisions of this Court.

Prior to the enactment in 1935 of Title 2 of the Federal Power Act the states were legally authorized to deal with all aspects of the transmission of electric energy generated by steam except where there was an uninterrupted flow of such energy across the boundary line between two states.

Utah P. & L. Co. v. *Pfost*, 286 U. S. 165, 52 S. Ct. 548, 76 L. ed. 1038;

Public Utility Com. v. *Attleboro Steam & Elec. Co.*, 273 U. S. 83, 47 S. Ct. 294, 71 L. ed. 549;

Cf. *Pennsylvania Gas Co.* v. *Public Service Com.*, 252 U. S. 23, 40 S. Ct. 279, 64 L. ed. 434.

The right of the several states to exercise such control and regulation would continue until Congress so occupied the field of regulation as to divest the states of their power over the subject matter.

Hall v. *Geiger-Jones Co.*, 242 U. S. 539, 37 S. Ct. 217, 61 L. ed. 480;

Pennsylvania Gas Co. v. *Public Service Com.*, *supra.*

Or if Congress did not wholly occupy the field the right of the several states so to regulate and control such transmission would continue to the extent that Congress had failed to occupy the field and said regulation did not conflict with federal regulation.

Atchison, T. & S. F. R. Co. v. *Railroad Com.*, 283 U. S. 380, 392, 51 S. Ct. 553, 75 L. ed. 1128, 1136;

Maurer v. *Hamilton*, 309 U. S. 598, 60 S. Ct. 726, 84 L. ed. 969.

> "Congress may circumscribe its regulation and occupy only a limited field. When it does so, state regulation outside that limited field and otherwise admissible is not forbidden or displaced. The principle is thoroughly established that the exercise by the State of its police power, which would be valid if not superseded by federal action, is superseded only where the repugnance or conflict is so 'direct and positive' that the two acts cannot 'be reconciled or consistently stand together.'" *Kelly* v. *Washington*, 302 U. S. 1, 10, 58 S. Ct. 87, 92, 82 L. ed. 3, 10, 11.

On August 26, 1935, the Federal Power Act became law. The Court below was called upon to determine whether or not the Act subjected petitioner to the jurisdiction of the Commission. Petitioner had been and still is subject to complete regulation by the State of New Jersey. If Congress by the Act conferred jurisdiction over petitioner upon the Commission it must necessarily have ousted the State to some extent. But, however, Congress expressly stated in the Act that the Federal regulation provided for by the Act should "extend only to those matters which are not subject to regulation by the States." (Sec. 201 (a), 49 Stat. 847; 16 U. S. C. A. §824 (a)). This declaration is explicit and petitioner contends that it compels the conclusion that the several states still retain all powers of regulation which they could have exercised prior to the passage of the Act. If a state ever had power to regulate a given transaction it still has that power and such power is its alone. This being so, no power exercisable by the state can concurrently exist in the Commission.

The same reasoning leads to the conclusion that the Court below erred in stating that as to certain matters the power of the state was paramount and as to others the power of the Commission was paramount. There cannot

be a paramount authority unless more than one authority can operate on a given subject. It was the will of Congress expressed not only in the explicit language of the Act but also in the reports of congressional committees charged with the development of the legislation that the Act should avoid or preclude the existence of dual control. Accordingly the opinion below erroneously construes the Act by referring to it as permitting dual control and such construction results from failure to apply the applicable decisions of this Court heretofore cited.

The Court Below Erred in Construing the Statute So As to Extend the Meaning of the Words "In Interstate Commerce" to Matters "Affecting Interstate Commerce."

The statement by the Court below that the Board of Public Utility Commissioners of New Jersey must be deemed to have paramount authority "in those matters which may affect the intrastate transmission of electricity", while the Federal Power Commission must be deemed to have paramount authority over "those matters which may affect the transmission of electric energy in interstate commerce" (Record, p. 1134) is indicative of the fact that the court construed the Act to confer authority upon the Commission over matters which merely "affect" interstate commerce.

The Act does not use the words "affecting interstate commerce." It uses only the words "in interstate commerce." It provides for regulation of that part of the business which "*consists* of the transmission of electric energy *in interstate commerce* and the sale of such energy at wholesale *in interstate commerce*" (sec. 201(a), 49 Stat. 847; 16 U. S. C. A., § 824(a)). Identical language is used again where it is stated that the provisions of Part II

"shall apply to the transmission of electric energy *in interstate commerce* and to the sale of electric energy at wholesale *in interstate commerce*" (sec. 201(b), 49 Stat. 847; 16 U. S. C. A., § 824(b)).

This Court has held that statutes delegating authority to agents of the Federal Government over commerce must be construed strictly and not be extended beyond the meaning of the words used by Congress. *Federal Trade Com.* v. *Bunte Bros.*, 312 U. S. 349, 355, 61 S. Ct. 580, 583, 584, 85 L. ed. 881, 883. The Court there said that to expand the meaning of the words "in commerce" as though they meant "affecting interstate commerce" requires a clearer manifestation of intention than Congress had there furnished. In that case the matter attacked by the Federal Trade Commission was not subject to regulation by any state authority. In the case at bar the business and facilities of petitioner are completely subject to regulation by the State of New Jersey and Congress has said plainly and in several ways, that it does not intend to regulate matters which are subject to regulation by the states. This declaration discloses the intent of Congress and, pursuant to decisions of this Court, should prevent an expansion of the phrase "in interstate commerce." It also controls the construction of the various other parts of the Act.

It is true that the definition of interstate commerce in section 201(c) of the Act (49 Stat. 848; 16 U. S. C. A., § 824(c)) requires that electricity shall be deemed to flow in interstate commerce when it is "transmitted from a state and consumed at any point outside thereof." However, petitioner contends that, even if such definition is not controlled by the restrictive declaration of section 201(a), petitioner does not transmit any electric energy "from a state." Pursuant to decisions of this Court referred to in

Point III of this brief, any energy generated by petitioner which may be consumed at a point outside of the State of New Jersey does not flow in interstate commerce until Public Service transmits it and hence is "transmitted from a state" only by Public Service. The transmission of electric energy between Jersey Central and Public Service is transmission in intrastate commerce and the facilities used therefor should not be deemed subject to the jurisdiction of the Commission but rather expressly excluded from such jurisdiction by the provisions of sections 201(a) and 201(b) of the Act (49 Stat. 847, 16 U. S. C. A., §§ 824(a) and 824(b)).

The opinion below construes the provisions of section 201(c) in a manner conflicting with the decisions of this Court by extending the scope of defined transactions in interstate commerce so as to include tranactions which merely "affect" interstate commerce and are therefore beyond the provisions of the Act.

POINT III.

The decision below is in conflict with Article I, section 8, paragraph 3 of the United States Constitution concerning the Federal power over interstate commerce.

To construe the transactions between petitioner and Public Service so as to find petitioner engaged in interstate commerce is a strained interpretation of the facts and beyond the power vested in Congress to regulate interstate commerce.

> "The importance of the commerce clause to the Union, of course, is very great. But it is also important to prevent that clause being used to deprive

the states of their life blood by a strained interpretation of facts.'" *Superior Oil Co.* v. *Mississippi*, 280 U. S. 390, 395, 50 S. Ct. 169, 74 L. ed. 504, 507.

"The authority of the Federal Government may not be pushed in such an extreme as to destroy the distinction which the commerce clause itself established, between commerce 'among the several states' and the internal concerns of a state." *National L. R. Bd.* v. *Jones & Laughlin S. Corp.*, 301 U. S. 1, 30, 57 S. Ct. 615, 81 L. ed. 893, 907.

The effect of the opinion below is to extend the Federal jurisdiction into commercial transactions which are wholly intrastate. The transactions between Public Service and Staten Island by definition expressly fall within the scope of the Act (sec. 201(c), 49 Stat. 848, 16 U. S. C. A., § 824(c)). The transactions between petitioner and Public Service are, by the interpretation placed upon them in the opinion below, made to fall within the judicially construed purpose of the Act. Petitioner contends that such transactions are intrastate transmissions expressly excluded from the scope of the Act by section 201(b) (49 Stat. 847, 16 U. S. C. A., § 824(b)). The opinion below finds that there are no commercial relations between petitioner and Staten Island and that petitioner does not transmit electric energy directly in interstate commerce (Record, pp. 1133, 1128). The basis of the Court's finding of interstate commerce is that the physical connections are such that there were occasions when some electric energy generated by petitioner would inevitably enter the facilities of Staten Island (Record, p. 1133). It is conceded that the contractual relations between petitioner and Public Service do not in any sense intend or comprehend any flow of electric energy beyond state lines. While the opinion below holds that such a flow of energy to Staten Island facilities was inevitable, it also

finds that the amount of energy is unknown and measured by total system KWH it was small (Record, p. 1127). Petitioner contends that it is not engaged in a course of commerce beyond state lines.

Sale by Petitioner to Public Service.

The energy, when delivered by petitioner to Public Service is wholly beyond petitioner's control as to use and destination. There is no presumption that the transmission of electric energy to Public Service will be continued beyond state lines and petitioner is entitled to depend upon its contract affecting the local transmission of energy to Public Service. See *Gulf, Colo. & S. F. Ry. Co.* v. *Texas*, 204 U. S. 403, 414, 27 S. Ct. 360, 51 L. ed. 540, 547. The situation is similar to the facts in the case of *Superior Oil Co.* v. *Mississippi, supra*, which states (280 U. S. at 395):

> "But here the gasoline was in the hands of the purchaser to do with it as it liked, and there was nothing that in any way committed it to sending the oil to Louisiana except its own wishes. If it had bought bait for fishing that it intended to do itself the purchase would not have been in interstate commerce because the fishing grounds were known by both parties to be beyond the state line. A distinction has been taken between sales made with a view to a certain result, and those made simply with indifferent knowledge that the buyer contemplates that result."

In the case of *McCluskey* v. *Marysville & N. R. Co.*, 243 U. S. 36, 39, 37 S. Ct. 374, 375, 61 L. ed. 578, 580, this court adopts the following *ratio decidendi:*

> "The defendant Mill Company simply carried over its own road, on its own cars, its own goods to

> a market where it sold and delivered them. It had no concern with the subsequent disposition of them. It was under no obligation to deliver them to another carrier, and no other carrier was under obligation to receive them or carry them further. The selling of the poles after the first sale by the Mill Company, or whether they were going outside of the state, depended upon chance or the exigencies of trade. The movement of the poles did not become interstate commerce until, by the act of the purchasers thereof, the poles were started on their way to their destination in another state or country."

Similarly, Jersey Central transmits, over its own ⅞ mile line, its own energy to a market where it sells and delivers this energy. It has no concern with the subsequent disposition of this energy. It was under no obligation to deliver the energy to Staten Island and neither Staten Island nor Public Service was under obligation to transmit the energy further. The sale of this energy after the first sale by Jersey Central and whether it went to Public Service local and New Jersey consumers or went outside the state depended upon "chance or the exigencies of trade" or uncontrolled electric phenomena. The movement of the energy did not become interstate commerce except when it was in transmission from Public Service to Staten Island.

The great portion of Public Service business is with its consumers resident in New Jersey. Its business with Staten Island its relatively insignificant. Any assumption on the part of petitioner as to the destiny of electric energy transmitted to Public Service would be its redistribution to Public Service consumers.

Sale by Public Service to Petitioner.

The transmission from Staten Island to Public Service is interstate commerce as defined by the Act and in *P. U. Com.* v. *Attleboro Steam & Elec. Co.*, 273 U. S. 83, 47 S. Ct. 294, 71 L. ed. 549. Any further transmission from Public Service to petitioner is in the field of intrastate commerce and is beyond the provisions of the commerce clause of the Constitution. Compare the case of *Pub. Utilities Com. v. Landon*, 249 U. S. 236, 39 S. Ct. 268, 63 L. ed. 577:

> "... wherein we dealt with the piping of natural gas from one state to another, and its sale to independent local gas companies in the receiving state, and held that the retailing of gas by local companies to their consumers was intrastate commerce, although the mains of the local companies receiving and distributing the gas to local consumers were connected permanently with those of the transmitting company. Under the circumstances set forth in that case we held that the interstate movement ended when the gas passed into the local mains." *Penn Gas Co.* v. *Pub. Serv. Com.*, 252 U. S. 23, 28, 40 S. Ct. 279, 280, 64 L. ed. 434, 441, 442.

Conclusion of Point III.

Hence the interstate journey whether to or from Staten Island, starts or ends at the Public Service bus bar and the journey between petitioner and Public Service, whether to or from that bus bar, is purely intrastate.

POINT IV.

The decision of the Court below is in conflict with the decisions of this Court affecting the relationship between State and Federal authority.

It is held in the opinion below that dual control may exist with respect to the subject matter of the appeals to the Court and that the authority of the State Commission is paramount in matters affecting intrastate transmission of electricity and the authority of the Federal Commission is deemed to be governing as to matters which affect interstate transmission of electricity in interstate commerce. The Court finds that it cannot presume a conflict between Federal and State Commissions upon the question of the acquisition of petitioner's stock and that no conflict is shown from the record (Record, p. 1134).

The New Jersey Commission approved the acquisition of petitioner's stock by New Jersey Power & Light (*id.*, p. 1110). The Federal Commission has declared such acquisition to be illegal in that it is in express violation of the terms of the Federal Act (Record, p. 940). The actions of these Commissions, therefore, are in conflict. In this situation there can be no dual control. If the Federal authority exist, it must prevail.

> *Pennsylvania R. Co.* v. *Public Service Com.*, 250 U. S. 566, 569, 40 S. Ct. 36, 37, 63 L. ed. 1142, 1145;
>
> *Florida* v. *United States*, 292 U. S. 1, 54 S. Ct. 603, 78 L. ed. 1077.

There can be no dual control such as is indicated in the opinion below over the transmission facilities between peti-

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM—1942

No. .....

NEW JERSEY POWER & LIGHT COMPANY,
Petitioner,
against
FEDERAL POWER COMMISSION,
Respondent.

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT AND BRIEF IN SUPPORT THEREOF.

TO THE HONORABLE THE CHIEF JUSTICE AND THE ASSOCIATE JUSTICES OF THE SUPREME COURT OF THE UNITED STATES:

Your petitioner, New Jersey Power & Light Company, respectfully shows as follows:

Nature of Proceedings Below

New Jersey Power & Light Company, petitioner, seeks review of a judgment (R. 1135) of the United States Circuit Court of Appeals for the Third Circuit entered May 25, 1942, affirming a Determination (R. 936) of the Federal Power Commission dated July 18, 1939. The opinion of the Circuit Court of Appeals is not yet officially reported. It appears at R. 1113 ff. and for convenience has been reprinted as Appendix A hereto, with the same pagination as appears in the record. The Determination of the Federal Power Commission is reported unofficially at 30 P. U. R. (N. S.) 33, and appears at R. 936-940.

This petition for certiorari should be considered jointly with the petition for certiorari and acompanying brief of Jersey Central Power & Light Company, No. 299, October Term, 1942, filed in this Court on August 13, 1942. The two matters grew out of a single proceeding before the Federal Power Commission, and were decided upon a single record in the Court below. A certified transcript of said record, together with ten printed copies of the same, have been filed in this Court by Jersey Central Power & Light Company. Petitioner has therefore not filed in this Court an additional certified transcript or any additional printed copies thereof.

This proceeding had its inception in an order (R. 1) issued by the Federal Power Commission (hereinafter referred to as "Commission") dated June 7, 1938, directing the petitioner, New Jersey Power & Light Company, to submit in writing detailed information concerning the reported acquisition by it of 341,350 shares of Common Stock of Jersey Central Power & Light Company "in apparent violation of Section 203(a) of the Federal Power Act." (Jersey Central Power & Light Company will hereinafter be referred to as "Jersey Central"). Petitioner is admittedly a "public utility", as that term is defined in the Federal Power Act. Section 203(a) of the Act (49 Stat. 849, 16 U. S. C. A. Sec. 824b) provides, among other things, that a public utility may not acquire stock in another public utility without prior approval of the Commission. Petitioner in its answer admitted the acquisition of the Jersey Central stock on March 14, 1938, but denied that Jersey Central was a "public utility" as defined in the Federal Power Act. It further averred that the acquisition in question was subject to the jurisdiction of the Board of Public Utility Commissioners of New Jersey, and attached a copy of an order of that body approving the acquisition (R. 5-8). Accordingly, petitioner denied that the acquisition violated Section 203(a) or any other provision of the Federal Power Act, or that prior approval of the Commission was necessary.

tioner and Public Service. State regulation must give way to the Federal with respect thereto. In proclaiming the existence of dual control the Court below again gave no effect to the limitation of the Act which provides that Federal regulation shall not extend to matters subject to State regulation, nor over facilities engaged in intrastate commerce. Under the facts in this case it is error to find the existence of a dual regulatory control or that concurrent authority may exist because the regulation of the transmission facilities in question and the right to acquire petitioner's stock are subject to State regulation. The finding of the existence of Federal regulation over similar subject matter can only presume a conflict and in this respect the opinion below is in conflict with the Shreveport case (*Houston E. & W. T. R. Co.* v. *United States*, 234 U. S. 342, 34 S. Ct. 838, 58 L. ed. 1341) which holds that in matters of conflict the State authority must give way to the Federal.

> "To the extent, if at all, that there is conflict between state and federal regulation, the latter must prevail." *Pennsylvania R. Co.* v. *Illinois Brick Co.*, 297 U. S. 447, 459, 56 S. Ct. 556, 80 L. ed. 796, 801.

This is not a case where concurrent power may exist as the Act repels the implication of concurrent power where State regulation exists (secs. 201(a), (b), 49 Stat. 847, 16 U. S. C. A., §§ 824(a), (b)). By the terms of section 201(a) of the Act (*idem*) the existence of State regulation necessarily excludes Federal jurisdiction. Under the facts the opinion below could only have found that Federal regulation was paramount and excluded State regulation affecting the subject matter of the appeals before the Court below.

To recognize the existence of State jurisdiction over the facilities found to be used in interstate commerce and hence subject to Federal regulation negatives the existence

of the doctrine of paramount control. One must be paramount. The opinion below leaves petitioner subject to both regulatory bodies. The Act (*idem*) by its terms excludes the Federal jurisdiction when the State has regulation. The opinion below should have excluded the Federal jurisdiction but in any event the finding of a dual jurisdiction conflicts with the doctrine of paramount jurisdiction in the Federal Government. The Act was evidently designed to avoid conflict and to avoid the doctrine of paramount authority in providing that the Federal jurisdiction should not extend to matters where the State has jurisdiction.

Conclusion.

Petitioner submits that the final determination by this Court of the questions of law involved in this case is of the utmost importance to electric light, heat and power companies in the matter of the settlement of State and Federal jurisdiction concerning regulation and the consequent conduct of their business and affairs.

Petitioner and many other electric light, heat and power companies will be subjected to substantial additional expense in compliance with the Act and it is of great importance to settle and define the uncertainties of the scope of Federal jurisdiction and regulation.

Respectfully submitted,

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JOS. F. AUTENRIETH,
ALFRED A. ROCHESTER.

Hearings were held, at which Jersey Central intervened and likewise denied that it was a "public utility" subject to the jurisdiction of the Commission (R. 15-19). On July 18, 1939 the Commission entered its order, designated as "Determination by the Commission", which determined that Jersey Central was a "public utility" and that the acquisition by petitioner, New Jersey Power & Light Company, of stock of Jersey Central was, despite the approval of such acquisition by the Board of Public Utility Commissioners of New Jersey, in violation of Section 203(a) of the Federal Power Act.

Among the findings made was the following:

> "The transmission facilities owned and operated by Jersey Central Power & Light Company extending from its substation adjacent to its generating plant in South Amboy, New Jersey, to the south bank of the Raritan River in said State are transmission facilities utilized for the transmission of electric energy in interstate commerce, and therefore, Jersey Central Power & Light Company is a 'public utility' within the meaning of the Federal Power Act;" (R. 939).

Extensive testimony had been taken with respect to all phases of Jersey Central's operations and all its facilities, but the only facility found by the Commission to be subject to its jurisdiction was the line (about seven-eighths of a mile long) referred to in the finding above. On that basis, the Commission asserted jurisdiction over Jersey Central.

Within the statutory period a petition for a rehearing (R. 941) was filed with the Commission and denied (R. 963). A petition for review under Section 313(b) of the Federal Power Act, (49 Stat. 860, 16 U. S. C. A. 825 *l*) was filed with the United States Circuit Court of Appeals for the Third Circuit (R. 1100) and on May 25, 1942 that Court affirmed the order of the Commission (R. 1135).

Statement of Jurisdiction

The jurisdiction of this Court is invoked under Section 313(b) of the Federal Power Act (49 Stat. 860, 16 U. S. C. A. Section 825 *l*), and Section 240 of the Judicial Code, as amended (43 Stat. 938, Sec. 1, 28 U. S. C. A. Sec. 347). The statute, the validity of which is involved, is the Federal Power Act, 49 Stat. 847, 16 U. S. C. A. Sec. 791(a), particularly Section 201 thereof, set forth below on pp. 5 and 6. The judgment of the Circuit Court of Appeals was entered May 25, 1942, and this petition is filed within three months thereafter.

Summary Statement of Facts

Petitioner, New Jersey Power & Light Company, is a New Jersey corporation engaged in the business of supplying electricity and gas at retail to consumers in New Jersey. Petitioner is subject to regulation by the Board of Public Utility Commissioners of New Jersey (N. J. S. A. 48:2-13), and is also admittedly a "public utility", as defined in the Federal Power Act, by reason of sales of electric energy at wholesale directly to companies outside New Jersey.

Jersey Central is likewise a New Jersey corporation engaged in the business of selling electricity and gas at retail. All its customers are in New Jersey (R. 274). The court below expressly found that Jersey Central does not *sell* any electric energy whatsoever directly in interstate commerce (R. 1128). Neither the Company's lines nor its franchise area extend even to a state border (R. 296; Int. Ex. No. 1, R. 272; 1038). The record is also clear that the facilities and operations of Jersey Central are subject to regulation by the Board of Public Utility Commissioners of New Jersey (R. 290-2; N. J. S. A. 48:2-13). The jurisdiction exercised by the Board is comprehensive and far-reaching, and extends over rates, service, securities, mergers, and the like. *The Board passed upon and approved the very stock acquisition which gave rise to this proceed-*

ing, (R. 5-8, 291) and the Court below found that the Board had jurisdiction to do so (R. 1134). The Court below, however, also found (erroneously, as petitioner contends) that Jersey Central is a "public utility" as defined in the Federal Power Act, and held that the Federal Power Commission also had jurisdiction over the stock acquisition, despite the express provision in Section 201(a) of the Federal Power Act (49 Stat. 847, 16 U. S. C. A. Section 824) that Federal regulation shall "*extend only to those matters which are not subject to regulation by the States*".

Statutory Definition

The provisions of the Federal Power Act defining the term "public utility" are as follows (49 Stat. 847-8, 16 U. S. C. A. 824):

> "Section 201. (a) It is hereby declared that the business of transmitting and selling electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation of matters relating to generation to the extent provided in this Part and the Part next following and of that part of such business which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest, *such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States*" (Italics added).
>
> "(b) The provisions of this Part shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line. The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, *but shall not have jurisdiction, except as specifically provided in this Part and the Part next following, over facili-*

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CHARLES ELMORE CROPLEY

Supreme Court of the United States

OCTOBER TERM—1942

No. 329

NEW JERSEY POWER & LIGHT COMPANY,
Petitioner,

against

FEDERAL POWER COMMISSION,
Respondent.

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT AND BRIEF IN SUPPORT THEREOF

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August 21, 1942

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(a) The provisions and legislative history of the Act show clearly the intention of Congress that only a person who is directly engaged in the transmission of electric energy in interstate commerce is a "public utility" 19

(b) The transmission by a person of electric energy in interstate commerce occurs only when, in accordance with such person's intent, a through and continuous movement of such energy from State to State takes place 21

(c) Jersey Central did not intend that any energy generated by it in New Jersey be transmitted to New York, and no through and continuous interstate transmittal of energy by Jersey Central occurred 24

(d) The construction given by the Court below to the Federal Power Act is not consonant with Article I, Section 8, Clause 3 of the Constitution 27

POINT II—Under the provisions of Section 201(a) of the Federal Power Act the Commission had no jurisdiction to pass on petitioner's acquisition of Jersey Central's Common Stock, and the holding to the contrary by the Court below is in error and raises an important question of Federal law which should be, but has not been, decided by this Court 30

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ties used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter. (Italics added.)

"(c) For the purpose of this Part, electric energy shall be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof; but only insofar as such transmission takes place within the United States.

"(d) The term 'sale of electric energy at wholesale' when used in this Part means a sale of electric energy to any person for resale.

"(e) The term 'public utility' when used in this Part or in the Part next following means any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part."

Connection of Jersey Central with Public Service

As stated previously, Jersey Central has no facilities for the *sale* of energy in interstate commerce. Jersey Central does have a connection with Public Service Electric and Gas Company (hereinafter referred to as "Public Service"), a non-affiliated company, at the south bank of the Raritan River, about seven-eighths of a mile from Jersey Central's generating plant at South Amboy, New Jersey. From time to time, under an informal, oral arrangement, subject to change daily or even hourly, Jersey Central sells to Public Service electric energy at the point of inter-connection in New Jersey (R. 277, 317-9), and Public Service takes the energy in its own lines under the Raritan River to the Mechanic Street substation of Public Service at Perth Amboy, New Jersey (R. 516). The Mechanic Street substation is one of fifty-four substations in the "Northern Zone" of Public Service (all of whose facilities are in New Jersey), and is one of seven substations in the "Central Division" of that Zone (R. 103, Comm. Ex. No. 10, R. 982). From this substation, Public Service has lines running to its Metuchen substation and switching station, to its Carteret

and Keasby substations, and thus to lines throughout its territory in New Jersey (R. 518). These lines constantly feed energy from Public Service's generators into Mechanic Street and draw from the latter as required by the demands of Public Service's customers. The Mechanic Street substation is an integral part of the general Public Service transmission and distribution circuits—one of the many points on the general service loops of that company, whose facilities and operations are much more extensive than those of Jersey Central or any of the other companies involved here.

The Public Service line interconnected with that of Jersey Central eventually leads to the bus bar of the Mechanic Street substation. That bus bar has nine other connections or "taps". Four of these run to the Public Service substations at Metuchen, Keasby and Carteret, referred to above, over all of which energy flows daily to and from the bus bar. Four other taps are connected with lines which serve local customers in and about Perth Amboy. One of the ten taps on this bus bar is connected to a line which runs through metering equipment, through an air-brake switch and then to a cable connected with the facilities of Staten Island Edison Corporation (hereinafter called "Staten Island"), a company selling electricity at retail in Staten Island, New York (R. 517-8).

It is beyond dispute that Jersey Central has no connections of any kind with Staten Island—no contracts, formal or informal, no arrangements, no "understandings", nothing (R. 285, 292-3, 332, 453-4). The court below expressly stated: "There were no commercial transactions whatsoever between the Staten Island Company and Jersey Central" (R. 1133). At certain infrequent and brief moments of time some energy (quantity unknown) generated by Jersey Central and delivered to the general circuits of Public Service escaped from the latter's lines to Staten Island. *The record is clear and uncontradicted that these escapes took place without the knowledge or intention of Jersey Central that such flow of energy should occur* (R. 285, 292-3). From an engineering standpoint, Jersey Cen-

tral could not route or direct energy to Staten Island even if it desired to do so, since control of the flow from Mechanic Street rests entirely in Public Service (R. 516). The court below, however, found that as a result of such occasional and irregular flow of energy from Public Service to Staten Island, the facilities of Jersey Central constituted facilities for the transmission of electric energy in interstate commerce, and that Jersey Central was therefore subject to the jurisdiction of the Commission.

Relation of Public Service and Staten Island

Public Service and Staten Island are in no way affiliated. The physical connection between the two companies is of long standing and antedates by several years the Jersey Central-Public Service connection (R. 273-4, 367). The engineer in charge of operations of Staten Island testified that the connection with Public Service is used primarily as an emergency connection (R. 349). At times when Public Service found itself able to generate especially cheaply it has also sold Staten Island "economy flow" energy under an informal, oral arrangement. As shown by the record (R. 355-60; Res. Ex. No. 3, R. 360, 1071), emergency and "economy flow" transactions between Staten Island and Public Service were quite insignificant in amount (R. 525).

Apart from the infrequent occasions when Staten Island took emergency or "economy flow" energy from Public Service, the two companies attempted to maintain the line "in balance", that is, to prevent *any* energy from flowing to either company. Uncontroverted testimony shows in detail that Staten Island has a watt-hour meter attached exclusively to the submarine cable connecting it with Public Service, so that the Staten Island operators may know at once when the balance has been disturbed and immediately restore it (R. 361-3, 409-11). It is impossible, of course, to maintain the balance absolutely, and there are surges or "swings" of energy, usually of momentary duration, from one company to another. As a result, unwanted energy "slops over" from one company to another (See R. 243,

245-61, 361, Resp. Ex. No. 8, R. 539, 1078½). This "slop-over" energy is of no commercial significance, and the record shows it is unreliable, unwanted and in general a nuisance (R. 361-3, 400, 465).

Petitioner concedes that during moments of time some energy generated by Jersey Central and transmitted to Public Service found its way over the lines of Public Service to Staten Island. However, the very examination made by the Commission to discover this phenomenon indicates that its occurrence was unknown and unintended by Jersey Central, beyond the control of Jersey Central, and of no *commercial* significance whatsoever. Public Service keeps a log record of energy flowing in and out of its Mechanic Street substation at given hours of the day, through the ten connections described above. The Commission examined the log readings during the period from January 26, 1937 to September 6, 1938, or a total of approximately 25,500 such readings (R. 266). From these the Commission selected 184, or 7/10ths of 1%—not at random, but deliberately and admittedly (R. 266) with the view of proving that some energy generated by Jersey Central found its way to Staten Island. To reach the conclusion desired, the Commission's engineers then made a detailed analysis of the energy supplied to and the demands made upon not only the Mechanic Street substation of Public Service, but all seven substations of the "Central Division" of Public Service (Comm. Ex. No. 13, R. 144, 1002). All these facilities are, of course, the property of Public Service, and Jersey Central has no information concerning their operation or any control over them. The Commission's engineers made studies of the power factors at each of the seven Public Service substations (R. 116), studied the line impedances throughout the Central Division of Public Service (R. 117), and finally concluded that on twenty-four of the 184 occasions (selected in turn from the 25,500), there were *moments of time* when all the energy flowing into Mechanic Street came from Jersey Central, and that since at those moments energy was flowing from Mechanic Street to Staten Island, that energy must have come from Jersey

Central (R. 125, Comm. Ex. No. 16-A). The record is clear that in every such instance during the period from August 26, 1935 (the date of the Federal Power Act's adoption) to March 14, 1938 (the date of the stock acquisition in question) energy generated by Jersey Central escaped to Staten Island from Public Service's lines solely and exclusively as "slopover" energy, while the two latter companies were attempting to keep their interconnection "in balance", to prevent *any flow* (Compare Comm. Ex. No. 16-A, R. 764, 1004 with Resp. Ex. Nos. 2 and 3, R. 353, 1079 and 360, 1071). On this evidence the Commission made its finding that Jersey Central owns facilities "utilized" for the transmission of energy in interstate commerce, and held Jersey Central to be a "public utility". This conclusion was affirmed by the Court below.

The status of one engaged *in* interstate commerce has thus been imposed on Jersey Central as a kind of vicarious liability, by reason of the acts or omissions of two other companies over whom Jersey Central has no control. Petitioner submits that this raises an important question of Federal law which the Court below decided erroneously, and which should be decided by this Court; that the position of the Commission and Court below appears directly contrary to *Oregon-Washington R. & Navigation Co.* vs. *Strauss & Co.*, 73 Fed. (2nd) 912, 914 (C. C. A. 9th, 1934), certiorari denied, 294 U. S. 723 (1935), where the Court, after examining many decisions of this Court and other Courts, said:

> "Under the decisions it is clear that two elements are indispensable to constitute an interstate or foreign shipment:
>
> '(1) There must be a through and continuous movement from one state to another, or to a foreign country.
>
> '(2) *There must be, at the time that the movement is started, an intention that the shipments shall be interstate or foreign, and this intention must be carried out. In a word, there must be the intent and the event . . .*"

Although the court below concluded that Jersey Central was a "public utility", it seemingly agreed with the contention of petitioner that Section 201(a) of the Act (49 Stat. 847, 16 U. S. C. A. Section 824(a)) limits the jurisdiction of the Federal Power Commission even over "public utilities" (such as petitioner), in view of the express language that Federal regulation shall "extend only to those matters which are not subject to regulation by the States", and the fact that the Board of Public Utility Commissioners of New Jersey approved the stock acquisition by petitioner. However, the court reasoned that no "conflict" between the State and Federal regulatory bodies was shown by the record, and the order of the Commission was therefore affirmed.

It is difficult to understand this conclusion. The New Jersey Board had jurisdiction over and approved the stock acquisition, so that the latter is a "matter" "subject to regulation by the States". The Act does not require that petitioner show that the Federal and State regulatory bodies disagree (if that is what is meant by "conflict"); either the Federal Power Commission had jurisdiction to pass on the stock acquisition or it did not. In holding that the Federal Power Commission had jurisdiction (for any purpose, or to any extent), petitioner respectfully submits that the court below was in error.

Questions Presented

I

Is Jersey Central a "public utility" as that term is defined in the Federal Power Act?

(a) Is a company, otherwise engaged wholly in intrastate commerce, engaged in interstate commerce by reason of the acts or omissions of other, non-affiliated persons, not its agents, over whom no control is exercised, and whose activities are conducted without its knowledge?

(b) Does the transmission of electric energy over facilities located wholly within a single state constitute transmission *in* interstate commerce without proof of a continuous movement of energy from one state to another, and without proof of any intention, express or implied, that the movement of energy shall be interstate?

(c) Does the transfer of energy by Jersey Central to Public Service constitute transmission *in* interstate commerce, in view of the delivery in the State of New Jersey of all such energy to the general network of Public Service, and the commingling of such energy with energy admittedly generated by Public Service?

II

Is the conclusion of the Court below that Jersey Central is a "public utility" tenable under Article I, Section 8, Clause 3 and the Tenth Amendment of the Constitution?

III

In view of the provision in Section 201(a) of the Federal Power Act, that Federal regulation shall not extend to matters subject to regulation by the States, has the Commission jurisdiction over Jersey Central, where it appears that all the facilities and all the activities of Jersey Central are subject to regulation by the Board of Public Utility Commissioners of New Jersey?

IV

In view of Section 201(a) of the Federal Power Act, and its legislative history, can the Commission exercise jurisdiction over petitioner or Jersey Central with respect to a "matter" which the court below found is subject to

regulation by the State of New Jersey, and which the appropriate regulatory body of the State of New Jersey has approved?

Reasons for Granting the Writ of Certiorari

I

This Court has never passed upon, or construed, the definition of "public utility" contained in the Federal Power Act. This case, therefore, raises an important question of Federal law which has not been, but should be, settled by this Court, to wit: whether the Federal Power Commission has jurisdiction over an electric company all of whose dealings are confined within the limits of a single State and which has no commercial transactions with any company or persons outside the State, but which may at times transmit electric energy, not destined for use outside the State, to the general circuits of another company (wholly within the State) which has a connection with a third company at the State border. The question is plainly one of public importance in view of the extent of utility facilities now in operation, the existence of State regulatory bodies in forty-seven States, and the express limitations on the scope of Federal regulation contained in the Federal Power Act itself.

The definition of "public utility" in the Act is not at all related to that term as used at Common Law, but on the contrary is a purely statutory concept and requires the analysis and interpretation of five separate subparagraphs in Section 201 of the Act. The record in the present case is free of such possibly extraneous issues as subterfuge, fraud, evasion or affiliation, and affords a good opportunity to construe a basic provision of a statute which has proven difficult and perplexing to follow or apply.

II

The court below, in holding that Jersey Central was engaged in interstate commerce by reason of the acts of other, non-affiliated persons over whom it has no control, and who act without its knowledge or direction, has decided an important question of Federal law in a manner which is untenable and not in accord with the Federal Power Act itself or with the following decisions, among others, of this Court and of various Circuit Courts of Appeal.

Superior Oil Co. v. *Mississippi*, 280 U. S. 389 (1930);
Atlantic Coast Line R. Co. v. *Standard Oil Co.*, 275 U. S. 257 (1927);
Moore v. *New York Cotton Exchange*, 270 U. S. 593 (1926);
Louisville & Nashville R. Co. v. *Parker*, 242 U. S. 13 (1916);
Federal Trade Commission v. *Bunte Brothers, Inc.*, 312 U. S. 349 (1941);
Department of Treasury v. *Wood Preserving Corp.*, 313 U. S. 62, 68 (1941);
Oregon-Washington R. & Navigation Co. v. *Strauss & Co.*, 73 Fed. (2nd) 912, 914 (C. C. A. 9th, 1934, certiorari denied, 294 U. S. 723 (1935));
Lipson v. *Spcony Vacuum Corporation*, 87 Fed. (2nd) 265, 267 (C. C. A. 1st, 1937);
Jewel Tea Co. v. *Williams*, 118 Fed. (2nd) 202 (C. C. A. 10th, 1941).

III

This Court has never passed upon or construed Section 201(a) of the Federal Power Act. In construing that provision the Court below has decided important questions of Federal law which have not been, but should be settled by this Court.

The Federal Power Act differs from many recent Federal regulatory enactments in that: (a) Federal regula-

tion is directed only to persons engaged *in* certain types of interstate commerce, and not to persons in activities which may merely *affect* interstate commerce; and (b) Federal regulation over persons admittedly engaged in the specified types of interstate commerce is limited to "those matters which are not subject to regulation by the States". This provision is one of the most important in the entire Act, since it marks the jurisdictional boundary between the forty-seven State commissions and the Federal Power Commission. Section 201(a) was the result of extensive Congressional debate and amendment, as appears from the legislative history referred to in the opinion of the court below (R. 1128-1131). The instant case affords a good opportunity for this Court to render an authoritative construction of Section 201(a), since the court below expressly found that petitioner's acquisition of stock in Jersey Central was subject to regulation by the State of New Jersey and approved by the appropriate regulatory body of that State, but nevertheless held such acquisition was also subject to the jurisdiction of the Federal Power Commission.

IV

In so far as the decision of the court below holds that Federal regulation under the Commerce Clause may be imposed on an electric company as long as it can be shown that any quantity of energy, no matter how small, generated by it reaches a second state, regardless of the infrequency or irregularity of such occurrence, regardless of the commingling of such energy with that of non-affiliated companies, and regardless of the absence of any commercial relationship with any person or company in another state and of the absence of any intent to engage in interstate commerce, such decision is not tenable under Article I, Section 8, Clause 3 or the Tenth Amendment of the Constitution, and

is not in accord with the following decisions, among others, of this Court:

Utah Power & Light Company v. *Pfost*, 286 U. S. 165 (1932);
McCluskey v. *Marysville & N. R. Co.*, 243 U. S. 36, 39 (1917);
Swift and Co. v. *United States*, 196 U. S. 375, 398 (1905);
Galveston, Harrisburg & San Antonio Ry. Co. v. *Texas*, 210 U. S. 217, 225 (1908);
National Labor Relations Board v. *Fainblatt*, 300 U. S. 601, 607 (1939);
Santa Cruz Fruit Packing Co. v. *National Labor Relations Board*, 303 U. S. 453, 466 (1938).

CONCLUSION

WHEREFORE, petitioner, New Jersey Power & Light Company, prays that a writ of certiorari be issued out of and under the seal of this Court, directed to the Circuit Court of Appeals for the Third Circuit, commanding that Court to certify and send to this Court a full and complete transcript of the record of proceedings of said Circuit Court of Appeals for the Third Circuit in this case, numbered and entitled on its docket as No. 7257, *New Jersey Power & Light Company* vs. *Federal Power Commission*, to the end that this case may be reviewed and determined by this Court as provided by the statutes of the United States; and that the judgment of said Circuit Court of Appeals for the Third Circuit herein be reversed by this Court; and for such other relief as to this Court may seem proper.

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BRIEF IN SUPPORT OF PETITION FOR WRIT OF CERTIORARI

Reference to Opinions Below

The opinion of the Federal Power Commission is reported unofficially at 30 P. U. R. (N. S.) 33, and appears at R. 936-940. The opinion of the Circuit Court of Appeals for the Third Circuit is not yet officially reported, but appears at R. 1113-1134, and is reprinted as Appendix A hereto.

Statement of Jurisdiction

The Federal Power Commission, by order entered July 18, 1939 (R. 936) found that petitioner violated Section 203(a) of the Federal Power Act (49 Stat. 849, 16 U. S. C. A. Sec. 824b), by reason of the acquisition by petitioner of 341,350 shares of Common Stock of Jersey Central. The United States Circuit Court of Appeals for the Third Circuit affirmed this determination (R. 1135). The petition for certiorari herein is filed in accordance with the provisions of Section 313(b) of the Federal Power Act (49 Stat. 860, 16 U. S. C. A. Sec. 825 *l*) and Section 240 of the Judicial Code, as amended (43 Stat. 938, Sec. 1, 28 U. S. C. A. Sec. 347). The judgment of the Circuit Court of Appeals was entered May 25, 1942, and the petition herein was filed in this Court within three months thereafter.

Statement of the Case

The nature of the proceedings below and a summary statement of the facts therein are contained in the petition for certiorari (pp. 1-11). Reference is also made to the facts as set forth by the Court below (R. 1114-1121).

Specification of Errors

1. The Court below erred in holding that Jersey Central is a "public utility" as defined in the Federal Power Act.

2. The conclusion of the Court below that Jersey Central owns facilities for the transmission of electric energy in interstate commerce is in error in that such conclusion is not consonant with Article I, Section 8, Clause 3 and the Tenth Amendment of the Constitution.

3. The Court below erred in construing Section 201(a) of the Federal Power Act to mean that the Federal Power Commission had jurisdiction to pass on petitioner's acquisition of Jersey Central's common stock, in view of the prior approval of such acquisition by the Board of Public Utility Commissioners of New Jersey.

SUMMARY OF ARGUMENT

POINT I

Jersey Central is not a "public utility", as defined in the Federal Power Act, and the holding to the contrary by the Court below is untenable, represents a construction of the Act not consonant with the Commerce Clause of the Constitution, and raises important questions of Federal law which should be decided by this Court.

POINT II

Under the provisions of Section 201(a) of the Federal Power Act the Commission had no jurisdiction to pass on petitioner's acquisition of Jersey Central's Common Stock, and the holding to the contrary by the Court below is in error and raises an important question of Federal law which should be, but has not been, decided by this Court.

ARGUMENT

POINT I

Jersey Central is not a "public utility", as defined in the Federal Power Act, and the holding to the contrary by the Court below is untenable, represents a construction of the Act not consonant with the Commerce Clause of the Constitution, and raises important questions of Federal law which should be decided by this Court.

(a) The provisions and legislative history of the Act show clearly the intention of Congress that only a person who is directly engaged in the transmission of electric energy in interstate commerce is a "public utility"

The definition of "public utility" in the Federal Power Act is peculiar in that Section 201(e) (49 Stat. 848, 16 U. S. C. A. Sec. 824), while purporting to define the term, provides merely that a "public utility" is any person who owns or operates facilities subject to the jurisdiction of the Commission. Hence Sections 201(a) and 201(b), which purport to describe facilities subject to the Commission's jurisdiction, are immediately relevant (49 Stat. 847, 16 U. S. C. A. Sec. 824).

In substance, these sections (which have been reprinted at pp. 5-6, *supra*) provide *positively* and *negatively* that the Commission's jurisdiction is to extend only to the transmission of electric energy and the sale of electric energy at wholesale *in* interstate commerce, and not to the generation of electricity, or to facilities used in local distribution or to the transmission of electric energy in *intrastate* commerce. Finally, Federal regulation is restricted *"only to those matters which are not subject to regulation by the States"*. From the terms of the statute itself, therefore, the jurisdiction of the Commission is definitely limited, and as a corollary the term "public utility" includes only a restricted type of electric utility company.

The limited application of the term "public utility" becomes even more apparent when the legislative history

of the Act is examined. The Federal Power Act was a companion bill to the Public Utility Holding Company Act of 1935, and both were introduced in the Senate as S. 1725, 74th Congress, 1st Session, and in the House as H.R. 5423, 74th Congress, 1st Session. Since it was believed that State commissions could not effectively regulate *holding* companies, owning stocks of subsidiary companies in many states, Congress determined to regulate all such companies "which are engaged in interstate commerce or in activities which directly *affect* or *burden* interstate commerce" (49 Stat. 803, Sec. 1, 15 U. S. C. A. Sec. 79a). On the other hand, *operating* companies engaged in the electric utility business had been subject to regulation for many years by State commissions, which now exist in forty-seven States. Here the stated need for Federal regulation was that disclosed by *Public Utilities Commission* vs. *Attleboro Steam and Electric Company*, 273 U. S. 83 (1927), which held that the state where electricity is generated is without constitutional power to regulate sales at wholesale or transmission directly across a state line.

To close this "gap" in utility regulation, the Federal Power Act was adopted. That this was the purpose of the Act is evidenced throughout the course of the Act's legislative history. For example, Chairman Rayburn, of the House Committee, made this explicit statement in reporting on the bill (H. R. Rep. No. 1318, 74th Cong., 1st Sess.):

> "Under the decision of the Supreme Court of the United States in *Public Utilities Commission* vs. *Attleboro Steam & E. Co.* (273 U. S. 83), the rates charged in interstate wholesale transactions may not be regulated by the States. *Part II gives the Federal Power Commission jurisdiction to regulate these rates.* . . ." (p. 7)
>
> "The bill takes no authority from State commissions . . . The new parts are so drawn as to be a complement to and in no sense a usurpation of State regulatory authority . . . *Probably, no bill in recent years has so recognized the responsibilities of State regulatory commissions as does title II of this bill*" (p. 8).

In the interest of brevity, petitioner will do little more than refer to the portion of the opinion of the Court below dealing with the legislative history of the Act (See R. 1128-1131). It is significant, however, that the original bill was far broader in scope than the Act as finally adopted. Among other things, the original bill (S. 1725, 74th Cong., 1st Sess.) imposed Federal regulation over generating facilities and facilities "*connected with*" facilities for the transmission and sale of electric energy in interstate commerce. Furthermore, there was no such provision as that contained in present Section 201(a) restricting Federal regulation to those matters not subject to regulation by the States.

The changes in the original bill were made after protest by the States themselves, through the National Association of Railroad and Utilities Commissioners, which was otherwise in favor of Federal legislation to regulate the "gap" previously referred to. See Hearings, House Committee on Interstate and Foreign Commerce, 74th Congress, 1st Session, H. R. 5423, p. 1610 ff., p. 1638, p. 1660 ff., p. 1677. The Act as finally passed was thus clearly limited to its original purpose—to fill the gap in State regulation disclosed by *Public Utilities Commission* vs. *Attleboro Steam and Electric Company*, 273 U. S. 83 (1927). Only those companies actually engaged in selling or transmitting energy in interstate commerce, which was beyond the power of the States to regulate, were included as "public utilities" subject to the Act. Companies merely "*connected with*" other facilities for interstate transmission and sale were eliminated from the definition of "public utility".

(b) The transmission by a person of electric energy in interstate commerce occurs only when, in accordance with such person's intent, a through and continuous movement of such energy from State to State takes place

Since it is clear that under the Act itself a company becomes a "public utility" only when it is engaged strictly in interstate commerce, and not merely by reason of acts which may affect or burden or lead to or are connected with interstate commerce, decisions dealing with what is neces-

sary to constitute an interstate shipment of a commodity are immediately relevant, especially since the Court below did not find that Jersey Central *sold* any energy in interstate commerce, but held merely that it was engaged in transmitting (i. e., transporting or shipping) electric energy in interstate commerce.

The law is clear that the movement of a commodity within one state constitutes interstate commerce only when it appears that there was (a) a through and continuous movement of the commodity from one state to another; and (b) an intention on the part of the first shipper, at the time of shipment, that the article move in interstate commerce.

To the effect that Federal regulation under the commerce clause requires through and continuous transit, see *McCluskey* vs. *Marysville & N. Ry. Co.*, 244 U. S. 36 (1917); *Arkadelphia Milling Company* vs. *St. Louis Southwestern Ry. Co.*, 249 U. S. 134, 149 (1919); and *Baltimore & Ohio R. Co.* v. *United States*, 15 F. Supp. 674 (1936) (per Learned Hand, J.).

An intention on the part of the shipper, *at the time the particular shipment starts its journey*, that the commodity move in interstate commerce is equally essential. Obviously, if a finding of interstate commerce could be based on the mere *fact* that goods sold or shipped by one person eventually are found in a second state, regardless of such person's knowledge or intention, or the intervention of one or more other persons, hardly any business activity would remain outside the scope of the Commerce Clause. Thus in *Superior Oil Company* vs. *Mississippi*, 280 U. S. 390 (1930), Mr. Justice Holmes pointed out that shipments are not interstate merely because made with "indifferent knowledge" that the buyer contemplates carrying a commodity to a second state, even though in *fact* the shipments customarily reached another state. The same thought is expressed in *Louisville & Nashville Railroad Company* vs. *Parker*, 242 U. S. 13 (1916) (the "mere expectation" that an interstate movement will occur is not enough); and in

Moore vs. *New York Cotton Exchange*, 270 U. S. 593 (1926), where the court said:

> "'If interstate shipments are actually made, it is not because of any contractual obligation to that effect; but it is a chance happening which can not have the effect of converting these purely local agreements or the transactions to which they relate into subjects of interstate commerce. Ware and Leland Co. *v.* Mobile County, 209 U. S. 405, 412, 413, 28 S. Ct. 526; 52 L. Ed. 855, 14 Ann. Cas. 1031. The most that can be said is that the agreements are likely to give rise to interstate shipments. This is not enough.'"

To the same effect, see *Atlantic Coast Line R. Co. vs. Standard Oil Co. of Kentucky*, 275 U. S. 257 (1927); *Jewel Tea Company* vs. *Williams*, 118 Fed. (2nd) 202 (1941); and *Lipson* vs. *Socony Vacuum Corporation*, 87 Fed. (2nd) 265 (1937).

The cases are well summarized and illustrated in *Oregon-Washington R. & Navigation Co.* vs. *Strauss & Co.*, 73 Fed. (2nd) 912 (1934), certiorari denied, 294 U. S. 723 (1935). That case is particularly relevant since it, too, involves the question of how far Federal regulatory power extends over the shipment of a commodity within a single state, as against the like power of the state itself. In that case a grain company in Oregon was in the business of purchasing Oregon wheat which was then consigned and shipped to it at Portland. The facts disclosed that customarily about 90% of this grain was resold (some directly from cars on the tracks) and shipped to persons outside Oregon, via other railroads or by sea. The plaintiff railroad carried the grain in Oregon, to Portland, and demanded compensation on the basis of an interstate tariff, filed with the Interstate Commerce Commission. The defendant insisted that the lower, intrastate rate (approved by the State Commission) applied to such carriage. The court held for defendant, on the ground that the shipper failed to allege and prove that each shipment of grain, *at*

the time it started to move in Oregon, was intended for interstate commerce. The court summarized the rule of the relevant decisions as follows:

> "Under the decisions it is clear that two elements are indispensable to constitute an interstate or foreign shipment:
>
> "(1) There must be a through and continuous movement from one state to another, or to a foreign country.
>
> "(2) There must be, at the time that the movement is started, an intention that the shipments shall be interstate or foreign, and this intention must be carried out. In a word, there must be the intent and the event . . . "

The court went further and stated (p. 915) that in order to recover, the carrier would have to make and prove the following allegation:

> "Prior to the time that each shipment mentioned in this complaint left the interior point of origin, the defendant intended that such shipment would be transported into another state or to a foreign country; and such shipment was in fact so transported."

The court then pointed out that the railroad had refused to amend its complaint for the reason that under the facts stated above it could not make such allegation.

(c) Jersey Central did not intend that any energy generated by it in New Jersey be transmitted to New York, and no through and continuous interstate transmission of energy by Jersey Central occurred.

It is appropriate, therefore, to see in the present case whether the Federal Power Commission could have made and sustained such an allegation with respect to the activities of Jersey Central. Petitioner will not repeat the facts stated in the petition (pp. 1-11), but points again to the testimony (R. 285, 292-3) of Mr. Crumley, who directs

the operations of Jersey Central, that when Jersey Central delivered energy to Public Service the former had no knowledge what Public Service did with such energy, and there were no arrangements whatsoever that such energy was for Staten Island or for anyone else other than Public Service itself; that Jersey Central had no arrangements or understandings of any kind with or with respect to Staten Island. In the same way, Mr. Lytle, who directs the operations of Staten Island, likewise testified (R. 365) that Staten Island's transactions with Public Service were in no way related to Jersey Central; that Staten Island always understood it received energy from Public Service; that "All our negotiations, all our agreements, all our talks with them, . . . led us to believe that it was power generated by Public Service Electric & Gas Company" (R. 363).

The Court below did not state directly, and made no finding, that Jersey Central intends to ship or transmit electric energy in interstate commerce to Staten Island. Moreover, the Court stated that "no one can say" how much energy went from Jersey Central to Staten Island, and that "Measured in terms of the KWH generated and transmitted by large electric public utility systems it was small" (R. 1121). Again, the lack of any commercial relations between the two companies was conceded (R. 1133).

Accordingly, petitioner submits there is neither substantial evidence nor any evidence of an intention on the part of Jersey Central that energy delivered by it to Public Service should move in interstate commerce or be used by anyone other than Public Service.

There is equally lacking any through and continuous movement in interstate commerce. The Court below held that since in the twenty-four instances already alluded to (p. 9) energy from Jersey Central flowed to Staten Island, such flow was direct and "not unexpected". Petitioner respectfully submits that this reasoning overlooks the fact that the concurrence of circumstances—the input and out-

put of energy throughout the Central Division of Public Service, the power factor at the time, the line impedances, the swing of "slop-over" at the moment between Public Service and Staten Island—necessary to permit energy to flow from Jersey Central to Staten Island, is unusual and in the highest degree accidental, and, as this record shows, occurred with such infrequency and irregularity that there was not in any sense a continuous flow of energy between Jersey Central and Staten Island.

Nevertheless, the Court below held that Jersey Central was engaged in interstate commerce. The reasoning of the Court was as follows:

> "Some part of the electricity passing from the Jersey Central system to the Public Service system moved in interstate commerce and reached the Staten Island Company. That electric energy was transmitted in interstate commerce within the meaning of Section 201(c) if the words of the subsection be applied literally. The facilities of Jersey Central were in fact employed for this transmission. This was not an accident. Once the circuit between the Jersey Central generating plant and the Staten Island Company [fol. 1142] was closed, inevitably electricity flowed from Jersey Central to the Staten Island Company. That result was not only not unexpected, it was unavoidable. The fact that Jersey Central sold this electricity to Public Service rather than to Staten Island does not serve to put the flow out of commerce. Once electricity flowed from the Jersey Central generating plant to the Staten Island Company, commercial transactions between the three companies under their respective contractual relations and arrangements followed. This was interstate commerce within the meaning of the Commerce Clause."

Section 201(c) of the Act provides that "For purposes of this Part, electric energy shall be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof". It is a *physical fact* that Jersey Central transmits energy only within New Jersey, and does not transmit energy *from* any state. It is

significant that the court, in the extract quoted above, states that Jersey Central sells the electricity to *Public Service*.

(d) The construction given by the Court below to the Federal Power Act is not consonant with Article I, Section 8, Clause 3 of the Constitution.

The decision of the Court below appears to be based on what it itself termed a "literal" construction of Section 201(c), to the effect that as long as energy generated in one state can in fact be traced to a second state, *any* facilities over which such energy flows are facilities used for interstate commerce and subject to the jurisdiction of the Commission. If the Act is thus construed, it is petitioner's contention that the Act, and particularly Section 201(c), would be unconstitutional as going beyond the power of Congress under the Commerce Clause.* Even with respect to the power of Congress to regulate activities which "affect" or "burden" interstate commerce, it has always been held that the effect on interstate commerce must be direct and substantial. In *Santa Cruz Fruit Packing Company* vs. *National Labor Relations Board*, 303 U. S. 453 (1938), this Court said (at page 466):

> "It is also clear that where federal control is sought to be exercised over activities which separately considered are intrastate, it must appear that there is a close and substantial relation to interstate commerce in order to justify the federal intervention for its protection. However difficult in application, this principle is essential to the maintenance of our constitutional system. The subject of federal power is still 'commerce', and not all commerce but commerce with foreign nations and among the several States."

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* Section 201(c) is actually a *limiting* provision, in that it excludes from Commission jurisdiction facilities for interstate transmission if the energy transmitted outside the state of generation is not also consumed outside the state. The section has been so applied by the Commission itself in *Matter of Chicago District Electric Generating Company*, F. P. C. Opinion No. 63, July 16, 1941.

Not every activity constitutes commerce or interstate commerce; this Court has many times said that interstate commerce is not a technical legal conception, but a practical one fixed by practical lines and the established course of business. See *Swift & Co.* vs. *United States*, 196 U. S. 375, 398 (1905) and *Galveston, Harrisburg & San Antonio Railway Company* vs. *Texas*, 210 U. S. 217, 225 (1908), and *Foster-Fountain Packing Co.* v. *Haydel*, 278 U. S. 1, 10 (1928). That interstate commerce with respect to electricity is likewise governed by practical considerations was held by this Court in *Utah Power & Light Company* vs. *Pfost*, 286 U. S. 165 (1932). In that case the State of Utah imposed a tax on the generation of electricity, and a company owning and operating a hydro-electric development in the state sought to escape the tax by arguing that electricity generated by it in Utah was transmitted directly to another state; that the flow of energy from the generator to the point of consumption in another state was instantaneous, as a matter of scientific fact, and there was no local or intrastate activity for Utah to tax. This argument is strikingly parallel to that made by the Commission and the Court below, which rested its decision on the fact that once the requisite combination of circumstances existed, energy flowed with the speed of light from Jersey Central to Staten Island, and that the interposition of Public Service was without significance. However, the *Utah Power & Light Company* case held that "what constitutes commerce, manufacturing or production is to be determined upon practical considerations", and that from a practical business standpoint electricity should be treated as a commodity, and commercial transfers and shipments of electricity should have the same legal significance as would follow the transfer and shipment of other commodities. Accordingly, this Court held there was a business or functional break at the point energy was transferred from generator to transmission line, and operations up to the point of transfer were local and subject to state taxation.

In the present case, while petitioner concedes that the Commission was able to demonstrate as a scientific fact that on infrequent and irregular occasions electric energy generated by Jersey Central reached Staten Island, petitioner urges that this does not and cannot of itself constitute interstate commerce. That any such movements of energy were not *business* transactions is perhaps best shown by the statement of the Court below that "There were no commercial transactions whatsoever between the Staten Island Company and Jersey Central" (R. 1133). This, of course, followed from the uncontroverted testimony, already referred to, of the operators of both companies.

It is evident that there were no commercial relations, and therefore there was no commerce, between Jersey Central and Staten Island. In fact, the quantity and character of any flow of energy between the two companies indicates that the maxim *de minimis non curat lex* should apply, in accordance with the principle stated in *National Labor Relations Board* vs. *Fainblatt*, 300 U. S. 601, 607 (1939) and adopted by several lower courts since its announcement. See *Goldberg* vs. *Worman*, 37 F. Supp. 778 (1941); *Rauhoff* vs. *Henry Gramling & Company*, 42 F. Supp. 754 (1941); *Collins* vs. *Kidd*, 38 F. Supp. 634 (1941).

* * *

The decision of the Court not only constitutes an untenable construction of the Federal Power Act but insofar as the Court held that the status of a company under the Act can depend on the acts of other, non-affiliated companies over whom it has no control, corporate-wise or physical, its decision represents a construction of the Act not consonant with the Commerce Clause, and raises novel and important questions of Federal law which should be decided by this Court.

POINT II

Under the provisions of Section 201(a) of the Federal Power Act the Commission had no jurisdiction to pass on petitioner's acquisition of Jersey Central's Common Stock, and the holding to the contrary by the Court below is in error and raises an important question of Federal law which should be, but has not been, decided by this Court.

The Court below, after considering the language of Section 201 of the Act and its legislative history, agreed with petitioner that "by Section 201(a) Congress made it plain that such [Federal] regulation was to extend only to those matters which were not subject to regulation by the States." (R. 1134). The Court also noted that "the transfer of stock with which we are concerned was approved by the Board of Public Utility Commissioners of New Jersey in the exercise of authority granted to the Commissioners by the law of New Jersey" (R. 1134). At this point it would seem that the only conclusion possible was: Federal regulation does not extend to the stock acquisition.

Instead, the order of the Commission was affirmed, i. e., petitioner was held to have violated Section 203(a) of the Act in acquiring the stock without authorization by the Commission. But if Federal regulation does not extend to such a matter as the stock acquisition, how could petitioner possibly have violated the Act in not securing authorization from a Federal agency?

The only answer made by the Court below is the following:

> "The sale was subject to the jurisdiction of the Federal Power Commission because Jersey Central is a public utility within the meaning of Section 201(e). We must consider the point of dual control but only insofar as it may be applicable to the appeals at bar, in view of the provisions of Section 201(a) restricting federal regulation, and the legislative history of Part II of the Act. The authority of the Board of Public Utility Commissioners of New

> Jersey must be deemed to be paramount in those matters which may affect the intrastate transmission of electricity and the authority of the Federal Power Commission must be deemed to be governing as to those matters which may affect the transmission of electric energy in interstate commerce. We cannot presume a conflict between the two regulatory bodies upon the issue of whether or not Jersey Power should have bought the stock of Jersey Central. No conflict is shown upon the present record and none may ever come into existence" (R. 1134).

Petitioner respectfully submits that this answer is fallacious. First, it misses the point that Section 201(a) not only limits the type of physical facilities subject to the Commission's jurisdiction, but also the jurisdiction to be exercised over *admitted public utilities*, such as petitioner. It is quite customary to find that Congress, in creating a Federal agency to regulate interstate commerce, conferred only incomplete powers on such agency, and left the residuary powers to the States. This feature of our Federal form of government was recently fully explored and discussed by Mr. Justice Frankfurter in *Kirschbaum* vs. *Walling*, 62 Sup. Ct. 1116 (June 1, 1942) and in *Federal Trade Commission* vs. *Bunte Bros., Inc.*, 312 U. S. 349 (1941). See also *Safe Harbor Water Corporation* vs. *Federal Power Commission*, 124 Fed. (2nd) 800 (1941), certiorari denied, 62 Sup. Ct. 943 (1942). In addition, there is nothing in the Act which requires petitioner to show a conflict between the State and Federal regulatory bodies. Even if there were such a requirement, the existence of such a conflict with respect to the particular transaction in question is abundantly clear. However, the purpose of Section 201(a) is to *avoid* such conflict. The Court reasons that if petitioner had shown "a conflict between the two regulatory bodies upon the issue whether or not Jersey Power [petitioner] should have bought the stock of Jersey Central", this showing would have ousted the Federal Power Commission of jurisdiction. Did the Court below intend that the jurisdiction of the Commission would exist only insofar as the Commission agreed with the State body?

The following extract from the debate on the floor of the Senate shows how thoroughly it was understood by Congress that the Federal Power Commission was not to regulate intrastate commerce, and that the jurisdiction of the State commissions was not to be disturbed:

> "Mr. Borah: I understand that it is not the intention of the framers and proponents of the measure to deal with intrastate matters at all.
>
> "Mr. Wheeler: That is correct.
>
> "Mr. Borah: If the general language used could be construed as dealing with intrastate matters, nevertheless the intention is to confine the operation of the bill to interstate matters?
>
> "Mr. Wheeler: That is entirely correct." (Cong. Record, Vol. 79, Part 8, p. 8431).
>
> "Mr. Wheeler: * * * We preserve the state regulation completely in the bill, but in title II we made the positive statement that the policy should not be to interfere with state regulation, but to assist and help state regulation." (Cong. Record, Vol. 79, Part 8, p. 8775).

If the Federal Power Commission has jurisdiction over the stock acquisition its refusal to approve such acquisition, despite the prior approval by the State body, would obviously constitute direct "interference" with State regulation. This was precisely the situation which Congress envisaged and sought to avoid when it discarded the original draft of the Act and inserted Section 201(a). Such action by Congress amply illustrates the "accommodation as between assertions of new federal authority and historic functions of the individual States" (*Kirschbaum* v. *Walling*, 62 Sup. Ct. 1116, 1118, June 1, 1942).

As showing that the questions raised by the decision of the Court below are of national interest and should be decided by this Court, petitioner has attached hereto as Appendix B a copy of Bulletin No. 102—1942, dated June 6, 1942, issued by the National Association of Railroad and Utilities Commissioners. This Bulletin comments upon the decision of the court below and is, in petitioner's opin-

ion, highly significant since the National Association of Railroad and Utilities Commissioners, as the representative of all State commissions, was instrumental in persuading Congress in 1935 both to regulate the sale and transmission of electricity in interstate commerce, and to adopt the Act in its present form (See p. 21, *supra*). In 1935, as at present, Mr. John E. Benton, over whose signature this Bulletin was issued, was General Counsel to the Association, and presented the amendments sponsored by the Association (*id.*).

The Bulletin describes the decision of the Court below as "somewhat startling", and remarks that "if sustained, it would seem to show that any *intrastate* electric utility which transmits *any* power to any electric utility runs the risk of being transferred into an *interstate utility* subject to the Federal Power Act by *transactions over which it has no control.*"

The author of the Bulletin has the same difficulty as petitioner in reconciling the Court's decision with the language of Section 201(a). The Bulletin states:

> "*Plainly*, as the court in its opinion says, *the stock sale transaction was subject to State commission regulation.* If within the reach of Federal power to regulate, Congress chose to direct that the Act should be so construed as to avoid interference with the exercise of State power. In this case, however, the court appears to have held that the stock sale transaction is *subject to regulation both by the New Jersey Commission and by the Federal Power Commission.* How each such commission can exercise 'paramount' or 'governing' authority over the same transaction, it is difficult to understand. The fact that conflict between the two commissions has not yet arisen does not answer the question. If the construction placed upon the Act by the court brings the Jersey Central under the jurisdiction of the Federal Power Commission, as to that transaction, *either that Commission has power to override the decision of the New Jersey Commission, or its decision is not 'governing'.*"

Petitioner respectfully submits that the petition herein should be granted not only because the decision of the Court below is untenable, but because a decision by this Court is necessary in the proper administration of the Federal Power Act.

CONCLUSION

The petition for a writ of certiorari should be granted and the decision of the Court below reversed and set aside.

Respectfully submitted,

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FREDERIC P. GLICK,
Of Counsel.

Appendix A

Opinion of the Court Below

(the pagination is the same as in the certified transcript of the record)

[fol. 1119] In the United States Circuit Court of Appeals for the Third Circuit, October Term, 1939

No. 7256

Jersey Central Power & Light Company, Petitioner,

v.

Federal Power Commission, Respondent

No. 7257

New Jersey Power & Light Company, Petitioner,

v.

Federal Power Commission, Respondent

On Petitions for Review from an Order of the Federal Power Commission

Opinion—Filed May 25, 1942

Before Biggs, Maris and Goodrich, Circuit Judges

Biggs, *Circuit Judge:*

[fol. 1120] Questions Involved

The petitioners in the cases at bar, Jersey Central Power and Light Company and New Jersey Power and Light Company, seek review of an order of the Federal Power Commission entered July 18, 1939 pursuant to the Federal Power Act (16 U. S. C. A. Sec. 791 et seq.). The first question presented for our determination is whether this court has jurisdiction of the petitions by virtue of Section 313(b) of the Federal Power Act (16 U. S. C. A. Sec. 825 1(b)). The second question is whether the "Determina-

tion of the Commission" can be sustained on its merits. The facts are as follows:

Facts

On June 7, 1938 the Commission entered an order pursuant to the provisions of Section 301(b), Part III of the Federal Power Act (16 U. S. C. A. Sec. 825 (b)), directing the petitioner, Jersey Power, to submit information concerning the acquisition by it of 341,350 shares of the common stock of the petitioner, Jersey Central, without the authorization of the Commission and allegedly in violation of Section 203(a) of the Act (16 U. S. C. A. Sec. 824b(a)). This section provides that no public utility within the purview of the Act shall purchase or acquire any security of any other public utility within the purview of the Act without having first secured an order of the Commission authorizing it to do so. Jersey Power, admitting that it was a public utility within the meaning of Section 201(e) of the Act (16 U. S. C. A. 824 (e)), filed an answer to the Commission's order admitting that it had acquired the stock of Jersey Central but denying that the provisions of Section 203(a) were applicable to the transaction for the asserted reason that Jersey Central was not a public utility within the meaning of the Act. Jersey Central sought intervention, was made a party to the proceedings, and asserted the same defense. After hearing, the Commission found that Jersey Central was a public utility within the meaning of the Act and that Jersey Power had acquired the securities in violation of Section 203(a). The Commis- [fol. 1121] sion issued its findings on July 18, 1939. Petitions for rehearing timely filed by both Jersey Central and Jersey Power were denied by the Commission on September 15, 1939. Review of the Commission's determination was then sought in this court.

Both Jersey Central and Jersey Power own and operate public utility systems in New Jersey. The petitioners and another electric public utility corporation, Public Service Electric and Gas Company, serve territories which comprise about two-thirds of the area of the State of New Jersey. Jersey Power's territory lies in the Western part of the State and is bounded roughly upon the west by the line of the Delaware River and the western boundary of New Jersey. To the south Jersey Power's territory

moves down with the line of the river to territory contiguous with that served by the Philadelphia Electric Company and its subsidiaries in Pennsylvania.

Jersey Central for its part serves two non-contiguous areas in New Jersey. One lies to the north adjacent to and east of the territory of Jersey Power and contiguous to the area served by Public Service on the east. Jersey Central has another area of service to the south and east of the territory of Public Service just mentioned. The latter area of Jersey Central runs from the Atlantic coast back to and contiguous with territory served by Public Service. It is with this area of service of Jersey Central with which we are most concerned in the cases at bar. Beginning at a point near Barnegat on the Atlantic coast, Jersey Central's lines run north through the New Jersey seaside resorts to South Amboy. Further to the west in central New Jersey other lines of Jersey Central supply electricity to New Lisbon and villages and towns to the north of it. These western lines connect with the eastern system at South Amboy.

From South Amboy a main connecting line runs across the territory of Public Service into the northern area served by Jersey Central. There is a large generating plant at South Amboy which is connected with a substation main-[fol. 1122] tained by Public Service at Perth Amboy on the opposite side of the Raritan River. This substation is known as the Mechanic Street Substation and what goes on there furnishes many of the basic facts giving rise to the controversy at bar.

The line which connects Jersey Central's generating plant at South Amboy with the Mechanic Street Substation is a little over two miles long. Jersey Central owns about seven-eighths of a mile of the connecting line, that portion of it which runs from Jersey Central's generating plant to the south bank of the Raritan River. At that point a submarine cable, owned by Public Service, takes the current under the Raritan River. Emerging from the river the current is taken by an overhead line owned by Public Service for a distance of about a mile and a fifth to the Mechanic Street Substation owned by Public Service. The connecting line comes into the Mechanic Street Substation through metering equipment and switches and is connected with a "bus-bar". There are a number of connections to

the bus. Two are to the plant of the General Cable Corporation, a customer of Public Service. Two are connections with Metuchen, New Jersey. Another connection leads to the town of Keasby in that state. An additional connection runs to Public Service's substation at Carteret, New Jersey. There is also, and this is of particular importance, a tap with metering equipment and an air break switch connected to a line of Staten Island Edison Corporation which serves Staten Island, New York.

At this point it becomes necessary to endeavor to describe three "types" of electricity which flow through the Public Service bus-bar at the Mechanic Street Substation. These three "types" of power are designated as "emergency", "economy-flow" and "incidental" or "slop-over" power. The petitioners take the point of view that we are concerned particularly with the last two kinds of electrical energy. But the fact is that electricity is energy no matter what you call it and the "types" of electrical energy involved in the cases at bar, as the petitioners use that word, refer [fol. 1123] really to the kind of contractual relations between Jersey Central and Public Service on the one hand and Public Service and the Staten Island Company on the other, pursuant to which current comes to or from Public Service's bus-bar at the Mechanic Street Substation.

"Emergency" power is simply electricity supplied by one power company to another when the latter needs additional electrical energy to take care of an emergency. The cost of emergency power is higher than that of the other types of power. The cost of and conditions for supplying emergency power between Public Service and Jersey Central are governed by a contract executed by the two companies and dated March 24, 1931.

The contract of March 24, 1931 provides that if the interconnecting facilities of the two companies are made available for power other than emergency power, the use of the connections should be made available by agreement between the companies. Accordingly Jersey Central and Public Service arrived at an oral agreement for an interchange of "economy-flow" electricity. Economy-flow electricity may be described as energy generated and supplied by one company to another when the receiving company has enough generating facilities to generate that electricity for itself but elects to receive it from another company because that company can generate and deliver it to the point where it is

needed more cheaply than the purchasing corporation. Economy-flow power is supplied to Public Service by Jersey Central upon a day-to-day basis and the price is calculated by a formula which consists in taking half of the cost of the electricity to the generating company and adding to that figure half of what the cost would have been if the purchasing company had generated the electricity.

Public Service receives economy-flow current almost daily from Jersey Central but it should be noted that Jersey Central's net receipts from the sale of economy-flow current for the year 1937 were about $10,000 while its net income from all the electricity sold by it during the same period [fol. 1124] amounted to $4,170,585. Jersey Central in fact is principally engaged in the retail sale of electricity to numerous individual customers in its territory. We shall deal with the electricity supplied by Jersey Central to Public Service in terms of kilowatt-hours at a later point in this opinion.

We think that "slop-over" or "incidental" current is well described upon the brief of the petitioner, Jersey Power, as " * * * an electrical phenomenon which consists in an instantaneous, involuntary ebb and flow where there is a physical connection, otherwise unused, between two systems. Where such an unused connection exists the two systems are normally 'in balance.' When there is a sudden demand for more energy made on one of the systems, its generators are speeded up to meet the demand. There is a tendency, however, for the system on which the sudden demand is made, to draw on the system with which it is connected for the instantaneous period between the demand and the compensating generating speed-up. * * * " Since the systems of Jersey Central, Jersey Power and Public Service are interconnected and are synchronized,[1]

[1] Synchronization consists in running the generators upon interconnected systems at the same rate of speed. One or more generators at strategic points upon the connected systems set the pace like metronomes running in unison. It appears from the record in the cases at bar that the metronome generators which set the pace for the interconnected alternating current power systems which we are discussing are operated on the systems of other interconnected public utility systems in Pennsylvania and New York. The Staten Island Company is in turn a part of and connected with

not only with each other but also with other electrical transmission systems covering the southern part of New Jersey, the southeastern part of Pennsylvania, the northeastern part of Maryland, Delaware and with the Staten Island Company, "spinning" reserve is maintained by Jersey Central, Jersey Power and Public Service. Additional spinning reserve is procurable from interconnected public utilities in Pennsylvania and New York. Spinning reserve [fol. 1125] consists of spinning dynamos, whose current may be thrown on the circuits in case of necessity. Since these various electric utilities systems are interconnected, it is obvious that there will be some incidental or slop-over current passing through the various system connections including the bus-bar at the Mechanic Street Substation which comprise the connections between Jersey Central and Public Service on the one hand and Public Service and the Staten Island Company on the other.

According to an exhibit introduced in evidence by the Commission the amount of economy-flow current received by Public Service from Jersey Central in 1937 and in the first three months of 1938 far exceeded the current in that category gotten by Jersey Central from Public Service. This power was metered at South Amboy and passed through the bus-bar of the Mechanic Street substation. In 1937, 55,421,000 KWH of electricity were delivered by Jersey Central to Public Service against 315,600 KWH received by Jersey Central from Public Service. For the first three months of 1938 Jersey Central delivered to Public Service 10,140,000 KWH against 87,400 KWH received by Jersey Central from Public Service. In 1936 Public Service received from Jersey Central 70,694,825 KWH against 1,400,720 KWH delivered by Public Service to Jersey Central. In 1935 the KWH delivered by the two companies to each other were comparable to the amounts delivered in 1936 and in 1934 the figures were comparable to those of 1937.

The meters at the Mechanic Street Substation were read at half hour intervals from 6 A. M. until midnight and at

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one of these systems. Though much emphasis is laid by some of the Commission's witnesses on the phenomenon of synchronization, it does not possess significance under the facts of the appeals at bar except to the extent indicated in the opinion.

hour intervals from midnight to 6 A. M. These readings were recorded regularly on log sheets kept by the station employees. From January 1, 1937 to September 6, 1938, 25,500 readings were made and recorded in the log. 184 readings, which the Commission found representative, were selected from the 25,500 readings and analyzed further by the Commission's experts. These show that as electricity flowed from Jersey Central to the Mechanic Street Substation, current flowed out from the bus-bar to [fol. 1126] the Staten Island Company. The 184 readings demonstrated that the electricity transmitted by Jersey Central to Public Service exceeded the local requirements for electricity from the bus-bar. 24 of the 184 readings were subjected to further analyses by the Commission in an attempt to determine the percentage of electricity supplied to the Staten Island Company originating in the Jersey Central system. The Commission found that these readings demonstrated that electricity was flowing out of all of the bus-bar connections except the connection with Jersey Central where current was flowing in. As a consequence the Commission found there was no electricity coming in to the bus-bar on these occasions except from Jersey Central. As to five periods examined it appeared that the flow of electricity to Public Service on the bus-bar from Jersey Central exceeded the requirements of the Central Division of Public Service, the load required to maintain the Staten Island Company and all local requirements of the substation.

The petitioners take exception to the conclusions drawn from the readings by the Commission's experts. They say that you can't earmark a kilowatt. This saying is as true as a statement that running water cannot be earmarked. But if water is put into a reservoir which is connected with pipes which cross state lines, some of the water will cross state lines and enter into interstate commerce if it be the subject of commercial transactions. The analogy between water and electricity is illustrative of the facts in the case at bar. The Commission was justified in finding as a fact that some of the electricity generated by Jersey Central at its South Amboy plant reached Staten Island.

Operators of the Staten Island Company stationed at the Staten Island end of the submarine cable running from the bus-bar under the Arthur Kill and operators of Public

Service on the New Jersey side of that estuary watched meters which registered the flow of current passing between the two companies and could and did cut the flow of electricity between them from time to time. The petitioners [fol. 1127] contend that much of the electricity which passed through the connection was slop-over or incidental current, that such flow was accidental and unintentional and should be disregarded as not in fact constituting interstate commerce. But on at least six occasions between August, 1935 and March, 1938 emergency current was metered through the cable from Public Service to Staten Island. Economy-flow current passed with some frequency between Public Service and the Staten Island Company. Between August 26, 1935 and December 31, 1935 the Staten Island Company got economy-flow current from Public Service at least ten times and received approximately 51,800 KWH from such flow. In 1936 the Staten Island Company received economy-flow current from Public Service thirty-seven times and got over 329,600 KWH therefrom. As an exhibit introduced by Jersey Power before the Commission shows, from the end of August, 1935 until the middle of March, 1938, leaving incidental flow out of the calculation but including emergency current therein, the Staten Island Company received 403,125 KWH from Public Service for which it paid over $3,300.

The amount of incidental flow current between Public Service and the Staten Island Company from the end of August, 1935 to the middle of March, 1938 is shown by another exhibit introduced into evidence by Jersey Power. It appears that from August 26 to December 31, 1935 the Staten Island Company delivered to Public Service 1,125,000 KWH of electrical energy and received from Public Service in the same period 1,013,900 KWH, leaving an excess of deliveries from Staten Island to Public Service of 111,100 KWH. Transmission figures of KWH for 1936, 1937 and 1938 are comparable and show that throughout the period designated, the Staten Island Company delivered more incidental flow current to Public Service than it received from that company. But the emergency and economy-flow current which the Staten Island Company received from Public Service was much greater than the amount of incidental flow current which went from the Staten Island Company to Public Service. Subtracting the value of the incidental flow

[fol. 1128] current delivered by Staten Island to Public Service from the emergency and economy-flow current delivered by Public Service to Staten Island we arrive at the balance of 52,100 KWH in favor of the Staten Island Company for which that company paid Public Service over $2,400.

How much of the electricity which flowed from Public Service to the Staten Island Company originated in Jersey Central's South Amboy generators and passed over the connecting line from South Amboy to the Machanic Street Substation and thence through the bus-bar to the Staten Island Company no one can say. It is certain that some did go to the Staten Island Company. Measured in terms of the KWH generated and transmitted by large electric public utility systems it was small.

There are details of the picture which we have omitted but what we have said presents with reasonable accuracy the situation between Jersey Central and Public Service on the one hand and Public Service and the Staten Island Company on the other.

The Commission bases its entire case upon the transmission of electricity by Jersey Central over the connecting line to Public Service and the fact that some part of this current reached the Staten Island Company.

THE LAW

Jurisdiction to Review the Determination by the Commission

A preliminary question must be disposed of. The petitioners assert that this court has jurisdiction to review the "Determination by the Commission" which found Jersey Central and Jersey Power to be public utilities within the meaning of Part II of the Federal Power Act. The Determination by the Commission was followed by its order denying petitions for rehearing. The denial of such petitions is a prerequisite to the review prescribed by the Act in courts of appeals. See Section 313 of the Act (16 U. S. C. A. Sec. [fol. 1129] 825 l) which provides that any party to a proceeding under the Act aggrieved by "an order" issued by the Commission may obtain a review of such order in a circuit court upon the denial of rehearing by the Commission. The question which we must determine is whether the "Determination by the Commission" has the status

of a reviewable order within the purview of Section 313(b) of the Act (16 U. S. C. A. Sec. 825 l (b)).

There can be no doubt that the effect of the Commission's determination is to establish Jersey Central's status as a public utility within the meaning of Section 201 of the Federal Power Act (16 U. S. C. A. Sec. 824). If the determination by the Commission that Jersey Central is a public utility stands, the sale of the stock of Jersey Central to Jersey Power became subject to the provisions of Section 203 (a) of the Act. But more than this, if the determination is affirmed, all the provisions of Parts II and III of the Act become applicable to Jersey Central. Some of the prohibitions and commands imposed by the statute upon a corporation with the status of a public utility within Section 201 of the Act are set out in the margin. These may be felt to be burdensome and onerous but Congress has determined them to be necessary for the regulation of electric public utilities engaged in interstate commerce.[2]

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[2] A public utility may not sell, lease or otherwise dispose of its facilities without the approval of the Commission, Section 203(a) (16 U. S. C. A. Sec. 824b(a)).

May not establish rates and charges without the approval of the Commission, Section 206(a) (16 U. S. C. A. Sec. 824(e)(a)):

May be required to render more efficient service by the Commission, Section 207 (16 U. S. C. A. Sec. 824f):

Must file upon the request of the Commission inventories, statement of original cost, and inform the Commission as to all additions, extensions and new construction, Section 208(b) (16 U. S. C. A. Sec. 824g(b)):

Must keep its accounts according to regulations prescribed by the Commission, Section 301(a) (16 U. S. C. A. Sec. 825(a)):

Must furnish to the Commission any information in respect to its accounts and records, maps, contracts and reports which the Commission may require, Section 301(b) (16 U. S. C. A. Sec. 825(b)):

Its rates of depreciation may be fixed by the Commission, Section 302 (16 U. S. C. A. Sec. 825a):

Must file annual and periodic special reports as required by the rules or orders of the Commission, Section 304 (16 U. S. C. A. Sec. 825c):

Must not have as directors any officer or director of a bank,

[fol. 1130] While the rules which we must follow in determining whether the Commission's determination may be reviewed by this court are not set out specifically in the decision of the Supreme Court in Rochester Telephone Corporation v. United States, 307 U. S. 125, none the less the case indicates what our conclusion should be. In the Rochester case the Supreme Court was dealing with an appeal under Section 238 of the Judicial Code as amended (23 U. S. C. A. Sec. 345) from a final decree by a district court of three judges under the Urgent Deficiencies Act of October 22, 1913 (28 U. S. C. A. Secs. 45, 47a) as extended by Section 402(a) of the Federal Communications Act (47 U. S. C. A. Sec. 402(a)), dismissing on the merits a bill to review an order of the Federal Communications Commission.

The Federal Communications Commission had ruled that the Rochester Telephone Corporation owed obedience to certain orders issued by the Commission. Those orders required all telephone carriers subject to the Federal Com- [fol. 1131] munications Act to file schedules of their charges, copies of their contracts with other telephone carriers and other information. The Rochester Telephone Company not responding to the orders, a Division of the Commission

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trust company, banking association, or firm authorized to underwrite securities of a public utility or an officer or director of an electrical equipment company supplying electrical equipment to such public utility, Section 305(b) (16 U. S. C. A. Sec. 825d(b)):

Must pay penalties fixed by the Commission not to exceed $1,000 for wilful failure to comply with any order or to respond to any subpoena, issued under the Act, Section 315 (16 U. S. C. A. Sec. 825n):

For any wilful or knowing act of commission or omission in violation of any of the terms of the Act any person may be punished by a fine not exceeding $5000 or imprisonment for not more than two years or both, Section 316(a) (16 U. S. C. A. Sec. 825o(a)):

And for any wilful or knowing violation of any rule, regulation, condition or order made by the Commission any person may be punished by a fine not exceeding $500 per day for each and every day during which the offense occurs, Section 316(a) and (b) (16 U. S. C. A. Sec. 825o(a) and (b)).

ordered the company to show cause why it should not be required to file responses to the orders served upon it. The Rochester Telephone Company answered and took the position that it was outside the requirements of the Federal Communications Act in the matters concerning which the Commission attempted to impose its jurisdiction. The Commission determined that the Rochester Telephone Corporation was under the "control" of the New York Telephone Company and therefore was not entitled to the classification of a mere connecting carrier under Section 2(b) (2) of the Act (47 U. S. C. A. Sec. 152(b) (2)). The Rochester Telephone Company filed a bill in the District Court seeking to have the orders of the Commission set aside and annulled. The District Court held that that company did not come within the exception set forth in Section 2(b) (2) of the Act and it appealed.

The Supreme Court by Mr. Justice Frankfurter discussed the procedural problems involved in appeals from "negative" orders or orders *vel non*, dividing, pp. 129, 132, the prior decisions involving "negative" orders into three categories. We are interested in the second of these categories because the orders therein bear an analogy to the "Determination by the Commission" at bar. That second category is: Where the action of the Commission sought to be reviewed declines to relieve the complainant from the command of a statute forbidding or compelling conduct on his part. As an example Mr. Justice Frankfurter cites, "* * * A denial of permission by the Interstate Commerce Commission for a departure from the long-short haul clause." The second group "* * * is composed of instances of statutory regulations which place restrictions upon the free conduct of the complainant."

[fol. 1132] The complainant may rid himself of these restrictions by asking the Commission to place him outside of the statute or, if within the terms of the statute, he may invoke the dispensing power of the regulatory body. In the latter situation the complainant, seeking a judicial review to rid himself of adverse action by the Commission, must clear the three hurdles of the existence of a case or controversy under Article III of the Constitution, "the conventional requisites of equity jurisdiction; [and] the specific terms of the statute granting to the district courts jurisdiction in suits challenging 'any order' of the Commission." If he can clear these hurdles he reaches his goal, the

jurisdiction in the reviewing court, to hear his appeal. In the case at bar the three hurdles have been removed by the specific review provisions of Section 313(b) of the Federal Power Act. The "Determination by the Commission" at bar is analogous to the orders in the second group described by Mr. Justice Frankfurter, orders imposing statutory obligations and prohibitions and it should follow that this court has jurisdiction to review the action of the Federal Power Commission which makes Jersey Central subject not only to statutory regulations which interfere with its freedom of conduct but compel specific actions by the Company and prohibit other actions by it.

In the case of Federal Power Commission v. Pacific Co., 307 U. S. 156, the question was presented as to whether an order of the Commission denying an application under Section 203(a) of the Act, the very section which the Commission invoked in the case at bar, was reviewable under Section 313(b). The facts were as follows. Two operating power companies filed a joint application under Sections 8 and 203 of the Act (16 U. S. C. A. Secs. 801 and 824b(a)), proposing to transfer all of the assets including licenses from one company to the other, terminating the existence of the first company. The Federal Power Commission found that the applicants had failed to establish that the proposed transfer would "* * * be consistent with the public interest within the contemplation of Section 203(a) [fol. 1133] of the Federal Power Act * * *" and denied the application. The power companies sought a review of the Board's order before the Circuit Court of Appeals for the Ninth Circuit and the Commission challenged the jurisdiction of that court by a motion to dismiss the petition on the ground that the court was without jurisdiction under Section 313(b) because the order of which review was sought was a negative order.

The Supreme Court, ruling that the order complained of was reviewable, p. 159, stated that if the Federal Power Act had included the provisions of the Urgent Deficiencies Act pertaining to reviews of orders of the Interstate Commerce Commission, the decision of the Supreme Court in the Rochester Telephone Corporation case would sustain the assumption of jurisdiction by the circuit court of appeals. Mr. Justice Frankfurter said, "But the Power Act contains a distinctive formulation of the conditions under which resort to the courts may be made and Congress determines the

scope of jurisdiction of the lower federal courts." Referring to Section 313(b), the Supreme Court concluded that the denial of the power companies' application by the Commission as not consistent wtih the public interest, was an order; that the petitioners were aggrieved by it since without such approval the transfer was forbidden. "Thus," said the Supreme Court, "the statutory scheme of the Power Act only reinforced the analysis made in the Rochester case."

The determination by the Commission that the acquisition of stock of Jersey Central by Jersey Power was in violation of Section 203(a) of the Act is paralleled by the order of the Commission denying the application of the power companies in the Pacific Power & Light Co. case. In the instant case the Commission viewed what had been done in retrospect and in effect forbade it. In the Pacific Power & Light Co. case the Commission viewed what was contemplated and ordered the power companies not to carry out the transfer of assets. In the instant case the Commission found Jersey Central to be a public utility within the meaning of Section [fol. 1134] 201 and thereby imposed upon Jersey Central the burden of complying with the provisions of the Act.

We conclude therefore that we have jurisdiction to review the Determination by the Commission. Compare Canadian River Gas Co. v. Federal Power Commission, 110 F. (2nd) 350, 113 F. (2nd) 1010, cert. den. 311 U. S. 693.

Is Jersey Central a Public Utility Within the Meaning of Section 201 of the Act?

Section 201(e) of the Federal Power Act (16 U. S. C. A. Sec. 824(e)) defines the term "public utility" when used in Parts II and III as "• • • any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part." To determine whether Jersey Central is a public utility within Section 201(e), it is necessary to determine the meaning of the word "facilities" as used in that subsection; that is to say, it is necessary to determine the existence or non-existence of "facilities" subject to the jurisdiction of the Commission. Section 201(b) (16 U. S. C. A. Sec. 824(b)) provides that the provisions of Part II shall apply to the transmission or sale at wholesale of electricity in interstate commerce "• • • but shall not apply to any other sale of electric energy • • •". The subsection then goes on to provide that the

Commission shall have jurisdiction "* * * over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this Part and the Part next following over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce * * *". Section 201(c) (16 U. S. C. A. Sec. 824(c)) provides that for the purpose of Part II, "* * * electric energy shall be held to be transmitted in interstate commerce if transmitted from a state and consumed at any point outside thereof; * * *".

The Commission takes the position that Jersey Central owns and operates "facilities" subject to its jurisdiction [fol. 1135] because Jersey Central transmits electricity from its South Amboy generating plant through the line owned by it, seven-eighths of a mile long, which connects at the south bank of the Raritan River with the line of Public Service which runs into the Mechanic Street Substation and is attached to the bus-bar which distributes current to the Staten Island Company. Therefore, say the Commission, Jersey Central is a public utility within the meaning of Section 201(e).

The petitioners lay emphasis on the provisions of Section 201(a) (16 U. S. C. A. 824(a)) which contains the declaration of policy embraced by Congress in passing the Federal Power Act. That Section provides: "It is hereby declared that the business of transmitting and selling electric energy for ultimate distribution to the public is affected with a public interest; and that Federal regulation of matters relating to generation to the extent provided in this Part and the Part next following and of that part of such business which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States." Jersey Central takes the position that all phases of the conduct of its business properly are subject to regulation by the State of New Jersey and that the New Jersey statute regulating Public Utilities (R. S. 1937, 48:2-13) is entirely sufficient to control and regulate Jersey Central. That company lays particular emphasis on Section 204(f) (16 U. S. C. A. 824c (f)) which provides that "The provi-

sions of this section shall not extend to a public utility organized and operating in a State under the laws of which its security issues are regulated by a State Commission."

Jersey Central points out that the Commission finds that because the electricity which moves between the Staten Island Company and Public Service is in interstate commerce, the facilities of Jersey Central which conduct that electricity to Public Service are in interstate commerce, [fol. 1136] though wholly within the State of New Jersey and functioning solely by reason of a contract between Jersey Central and Public Service for the delivery of electricity from the former company to the latter within the State of New Jersey. This conclusion, says Jersey Central, "* * * is based solely on insignificant and relatively infrequent but wholly uncontrolled occasions when energy of Jersey Central is found in the Staten Island facilities." Both petitioners contend that the Federal Power Act was not intended to include within the jurisdiction of the Commission such a facility as Jersey Central's short line and state that it is an absurdity to bring within federal jurisdiction a generating company whose electricity happens to flow across a state border into the system of a neighboring company. It is, of course, beyond dispute that Jersey Central itself sells no electricity directly in interstate commerce. So far as this record shows, aside from its own local customers, Jersey Central sells electricity only to Public Service and delivers that electricity to Public Service wholly within the State of New Jersey. The jurisdiction of the Commission must rest upon Jersey Central's ownership and operation of facilities for transmission of electricity which flows under the Arthur Kill from New Jersey to Staten Island.

The petitioner, Jersey Power, lays emphasis also upon the legislative history of Parts II and III of the Act. It points out that the first bill introduced on the subject, S 1725, 74th Cong., 1st Sess., February 6, 1935, provided by Section 201(a) that the provisions of the title should apply to the transmission and sale of electric energy in interstate commerce, to the production of energy for such transmission and sale, and that the Commission should have jurisdiction over "all facilities for such transmission, sale and/or production of energy by any means and over all facilities connected therewith as parts of a system of power transmission situated in more than one state * * * ". Hon Clyde

Nos. 299 and 329.

IN THE

Supreme Court of the United States

OCTOBER TERM—1942.

No. 299.

JERSEY CENTRAL POWER & LIGHT COMPANY,
Petitioner,

v.

FEDERAL POWER COMMISSION,
Respondent.

No. 329.

NEW JERSEY POWER & LIGHT COMPANY,
Petitioner,

v.

FEDERAL POWER COMMISSION,
Respondent.

BRIEF FOR PETITIONERS.

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L. Seavey, Chairman of the House Committee on Interstate and Foreign Commerce, stated in respect to the House bill, "The new Title II of this Act is designed to secure [fol. 1137] coordination on a regional scale of the nation's power resources and to fill the gap in the present state regulation of electric utilities. It is conceived entirely as a supplement to, and not as a substitution for State Regulation." See Hearings on H. R. 5423 before the House of Representatives Committee on Interstate and Foreign Commerce, 74th Cong., 1st Sess. Part I, p. 384. As Jersey Power states, there was opposition to this bill and to the corresponding bill introduced in the Senate. The opposition took the position that proposed legislation should be confined to matters beyond the power of state regulatory agencies. See Hearings, Committee on Interstate and Foreign Commerce, House of Representatives, 74th Cong., 1st Sess., H. R. 5423, Part 3, p. 1623 ff. Thereafter the Senate Committee in charge of the legislation in that body reported out a new bill, S. 2796, Sections 201(a) and (b) of which were comparable to Section 201(a) of S. 1725. These new sections declared the business "* * * of generating, transmitting, and selling electric energy for ultimate distribution to the public is affected with a public interest", and declared also that federal regulation of the transmission and sale of electric energy in interstate commerce "and [of] the generation of electric energy for such transmission and sale * * *" was necessary in the public interest. Subsection (a) of the new Senate bill further stated that it was the policy of Congress to extend federal regulation to those matters which could not be regulated by the states and to assist the states in the exercise of their regulatory powers without impairing or diminishing the authority of any state commission. Section 201(b) of S. 2796 provided that the provisions of Part II should be applied to the transmission of electric energy, to its sale at wholesale in interstate commerce, and, "to the production of electric energy for such transmission or sale." It stated that the Commission should have jurisdiction over all facilities "for such production, transmission or sale of electric energy by any means and over all facilities connected therewith as parts of a system of power transmission situated in more than one state, except facilities used only for the production or [fol. 1138] transmission of electric energy in intra state commerce or in local distribution * * *".

It is to be noted that in S. 2796 there were inserted for the first time provisions protecting the regulatory powers of the states. Generating facilities employed for the creation of electricity to be used in interstate commerce remained subject to the Commission's jurisdiction as did all facilities connected with such generating facilities as parts of interstate transmission systems.

In the report of the Committee on Interstate Commerce submitted to the Senate by Senator Wheeler (See S. Rep. No. 621, 74th Cong., 1st Sess. pp. 17, 18 and 19) it is stated: "The new part 2 of the Federal Water Power Act would constitute the first assertion of Federal jurisdiction over this major interstate public utility. The decision of the Supreme Court in Public Utilities Commission v. Attleboro Steam & E. Co. (273 U. S. 83) placed the interstate wholesale transactions of the electric utilities entirely beyond the reach of the States. Other features of this interstate utility business are equally immune from State control either legally or practically.

* * * * * * *

"* * * The revision has also removed every encroachment upon the authority of the States. The revised bill would impose Federal regulation only over those matters which cannot effectively be controlled by the States. The limitation on the Federal Power Commission's jurisdiction in this regard has been inserted in each section in an effort to prevent the expansion of Federal authority over State matters * * *"

Thereafter in the House of Representatives alterations were insisted upon and Sections 201(a) and (b) of the Act were set forth substantially in their present form. It will be noted that in the House amendments jurisdiction of the Commission over generating facilities and "facilities connected therewith as parts of a system of power transmission situated in more than one state" were not expressly included. [fol. 1139] The report accompanying the bill in the House (74th Cong., 1st Sess. House Report No. 1318) offered by Representative Rayburn, states, pp. 7 and 8: "The new parts are designed to meet the situation which has been created by the recent rapid growth of electric utilities along interstate lines. The percentage of electric energy generated in the United States that was transmitted across State lines increased from 10.7 in 1928 to 17.8 in 1933. The amount of energy transmitted in interstate commerce in

1933 was greater than all of the energy generated in the country in 1913. Under the decision of the Supreme Court of the United States in Public Utilities Commission v. Attleboro Steam & E. Co. (273 U. S. 83), the rates charged in interstate wholesale transactions may not be regulated by the States.

* * * * * * * * *

"The bill takes no authority from State commissions and contains provisions authorizing the Federal Commission to aid the State commissions in their efforts to ascertain and fix reasonable charges. Provision is made for joint boards composed of members of State commissions which may be used for this purpose. The new parts are so drawn as to be a complement to and in no sense a usurpation of State regulatory authority and contain throughout directions to the Federal Power Commission to receive and consider the views of State commissions. Probably, no bill in recent years has so recognized the responsibilities of State regulatory commissions as does title II of this bill."

The statement of the House Conferees accompanying the Conference Report upon S. 2796 offered by Representative Rayburn, Chairman of the House Conferees, (74th Cong., 1st Sess., House Report No. 1903, p. 74) says, "The Senate bill in section 201(a) contained a somewhat more lengthy declaration of policy than the House amendment, the only material difference being that the House amendment contained no reference to 'generation' of electric energy which appeared in the Senate bill. The conference substitute follows the language of the House amend- [fol. 1140] ment but inserts a clause relating to generation to the extent regulation thereof is provided for in this part and the part next following. The House amendment and conference substitute also makes reference to the 'sale of electric energy at wholesale in interstate commerce' which reference did not appear in the Senate bill. The same general differences between the Senate bill and the House amendment also appear in section 201(b) and the language of the House amendment has been followed with a clarifying phrase added to remove any doubt as to the Commission's jurisdiction over facilities used for the generation and local distribution of electric energy to the extent provided in other sections of this part and the part next following."

As we have said Section 201(a) of the Act states ex-

plicitly that the federal regulation proposed by the Act is intended "to extend only to those matters which are not subject to regulation by the states", and that Section 201(b) says with equal clarity that the Commission "shall not have jurisdiction, * * * over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of such electric energy in intrastate commerce, * * *." Generation of electricity, its local distribution or its transmission in intrastate commerce are not within the purview of the Act or the jurisdiction of the Commission. But the contentions of the petitioners in respect to the effect of the legislative history of Part II lose much of their potency when we contemplate the provisions of Section 201(c) which state that electricity shall be held to be transmitted in interstate commerce if transmitted from a state and consumed outside that state. Section 201(c) of the Act was in the original bill submitted to the Senate and the House of Representatives and came into the law substantially without change. That section fits well into the law as laid down by the decision of the Supreme Court in Public Utilities Comm. v. Attleboro Steam and Electric Co., 273 U. S. 83, and takes away, we think, the force of the argument of unconstitutionality made on behalf of the petitioners, at least insofar as the application of Section 201 of the Act to Jersey Central [fol. 1141] is concerned. The provisions of Part II were intended by Congress to be applied only to electrical energy transmitted in interstate commerce and in this field there can be no doubt that Congress possesses the constitutional right to legislate. See Northern Securities Company v. United States, 193 U. S. 197.

It follows that what we are concerned with in the appeals at bar is ascertaining the intention of Congress. We think that Congress intended to impose regulation upon those public utilities which operate facilities for the transmission of electricity in interstate commerce, transmission in interstate commerce being defined as electricity transmitted from a state and consumed at any point outside its borders.

An objection raised by the petitioners to the jurisdiction of the Commission lies in the small quantities of electricity which pass from Jersey Central's generating plant at South Amboy through the Public Service bus-bar into the lines of the Staten Island Company and the fact that this

electricity was not paid for by any consideration passing from the Staten Island Company to Jersey Central. There were no commercial transactions whatsoever between the Staten Island Company and Jersey Central. Jersey Power takes the position that insofar as economy-flow current passed between Jersey Central and Public Service on the one hand and Public Service and Staten Island on the other, the respective arrangements for this current had no relation to or effect upon the non-participating company and that Jersey Central supplied only such current as Public Service otherwise would generate for its own use.

Some part of the electricity passing from the Jersey Central system to the Public Service system moved in interstate commerce and reached the Staten Island Company. That electric energy was transmitted in interstate commerce within the meaning of Section 201(c) if the words of the subsection be applied literally. The facilities of Jersey Central were in fact employed for this transmission. This was not an accident. Once the circuit between the Jersey Central generating plant and the Staten Island Company [fol. 1142] was closed, inevitably electricity flowed from Jersey Central to the Staten Island Company. That result was not only not unexpected, it was unavoidable. The fact that Jersey Central sold this electricity to Public Service rather than to Staten Island does not serve to put the flow out of commerce. Once electricity flowed from the Jersey Central generating plant to the Staten Island Company, commercial transactions between the three companies under their respective contractual relations and arrangements followed. This was interstate commerce within the meaning of the Commerce Clause. For an analogy see the decisions of the Supreme Court in Eureka Pipe Line Company v. Hallanan, 257 U. S. 265, and United Fuel Gas Co. v. Hallanan, 257 U. S. 277. We do not think that it is important that the electricity which was transmitted is designated as emergency, economy-flow, incidental or slop-over current. It is electricity which is transmitted from New Jersey to New York when circuits are closed. We conclude, therefore, that the transmission of current which reached the Staten Island Company by Jersey Central over its facilities was such transmission as is described in the second sentence of Section 201(b). It follows that Jersey

Central is a public utility within the meaning of Section 201(e) of the Act.

As we have indicated it was the intention of Congress in passing Part II of the Act to extend federal regulation to the transmission of electricity in interstate commerce. But by Section 201(a) Congress made it plain that such regulation was to extend only to those matters which were not subject to regulation by the states. The petitioners point out that the transfer of stock with which we are concerned was approved by the Board of Public Utility Commissioners of New Jersey in the exercise of the authority granted to the Commissioners by the law of New Jersey, R. S. 1937, 48:2-13.

The sale of the Jersey Central stock to Jersey Power properly was subject to regulation by the State of New Jersey because Jersey Central was engaged in intrastate commerce in that it supplied electricity to local consumers [fol. 1143] within the State of New Jersey. The sale was subject to the jurisdiction of the Federal Power Commission because Jersey Central is a public utility within the meaning of Section 201(e). We must consider the point of dual control but only insofar as it may be applicable to the appeals at bar, in view of the provisions of Section 201(a) restricting federal regulation, and the legislative history of Part II of the Act. The authority of the Board of Public Utility Commissioners of New Jersey must be deemed to be paramount in those matters which may affect the intrastate transmission of electricity and the authority of the Federal Power Commission must be deemed to be governing as to those matters which may affect the transmission of electric energy in interstate commerce. We cannot presume a conflict between the two regulatory bodies upon the issue of whether or not Jersey Power should have bought the stock of Jersey Central. No conflict is shown upon the present record and none may ever come into existence.

The determination of the Commission is affirmed.

Appendix B

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS

7411-13-15 New Post Office Building
Washington, D. C.

BULLETIN No. 102—1942 June 5, 1942

TO MEMBER COMMISSIONS:

The U. S. Circuit Court of Appeals for the Third Circuit has sustained the order of the Federal Power Commission in the *Jersey Central Power and Light Company* case, referred to in our Bulletin No. 99—1939. The decision is somewhat startling, in that, if sustained, it would seem to show that any *intrastate* electric utility which transmits *any* power to another electric utility runs the risk of being transformed into *an interstate utility*, subject to the Federal Power Act, by *transactions over which it has no control*. The facts were these. The Jersey Central plant is in New Jersey and it sells energy only in that state. It, however, has arrangements with the Public Service Electric and Gas Company, under which it occasionally exchanges energy. The Public Service company's principal transactions are intrastate, but it has an exchange arrangement with the Staten Island Edison Corporation in New York, similar to its arrangement with Jersey Central. From August 1935 to March 1938 the Staten Island Company received 52,100 KWH more energy than it delivered to Public Service, and paid therefor some $2400. This trifling sum may be compared with revenues of the Jersey Central from electric sales of over $4,000,000. It will be perceived that *Jersey Central has no transactions with the Staten Island company.* No power generated by Jersey Central could reach Staten Island unless by an exchange delivery by Jersey Central to Public Service at the very instant Public Service happened to be delivering to Staten Island. If any such energy ever is thus delivered to Staten Island it is insignificant. *This is what the court said on that point,* in its opinion:

"How much of the electricity which flowed from Public Service to the Staten Island Company originated in Jersey

Central's South Amboy generators * * * *no one can say.* It is certain that some did go to the Staten Island Company. Measured in terms of the KWH generated and transmitted by large electric public utility systems *it was small.*"

Another electric utility acquired stock in the Jersey Central, *with* the approval of the New Jersey Commission, but *without seeking authority from the Federal Power Commission.* In a proceeding wherein the validity of the acquisition was brought in question, the purchasing utility denied that the Jersey Central was a public utility, as defined in Section 201(e). The Commission held the Jersey Central to be a public utility. That decision the court now sustains. *In its report* the Commission based its ruling *solely* upon the fact that the power exchange transactions between Jersey Central and Public Service are effected over a connecting line 7/8 of a mile of which is owned by the Jersey Central. This is held to be a "facility" used *in the transmission of electric energy* moving in interstate commerce. *Ergo*, the Federal Power Commission has jurisdiction over Jersey Central, and jurisdiction over the stock purchase transaction in question. The court, reviewing the Commission's order, said:

"The Commission bases its entire case *upon the transmission of electricity* by Jersey Central *over the connecting line* to Public Service and the fact that *some part of this current* reached the Staten Island Company. * * * That electric energy *was* transmitted in interstate commerce within the meaning of Section 201(e) *if the words of the subsection be applied literally.* The facilities of Jersey Central were in fact employed for this transmission. * * * The fact that Jersey Central sold this electricity *to Public Service rather than to Staten Island* does not serve to put the flow out of commerce. Once electricity flowed from the Jersey Central generating plant to the Staten Island Company, commercial transactions between the three companies under their respective contractual relations and arrangements followed. This was interstate commerce within the meaning of the Commerce Clause. *It follows that Jersey Central is a public utility within the meaning of Section 201(e) of the Act.*"

The court reviews at length committee reports declaring Congressional intent not to diminish State power, and seem-

ingly holds that this intent applies to the stock sale transaction involved; but *the court backs away from the question as to what happens if State and Federal commissions disagree.* We quote from the opinion on this point:

"As we have indicated * * * by Section 201(a) Congress *made it plain that such regulation was to extend only to those matters which were not subject* to regulation by the states. The petitioners point out that the transfer of stock with which we are concerned was approved by the Board of Public Utility Commissioners of New Jersey * * *. *The sale of the Jersey Central stock* to Jersey Power *properly was subject to regulation by the State* of New Jersey because Jersey Central was engaged in intrastate commerce * * *. The sale was subject to the jurisdiction of the Federal Power Commission because Jersey Central is a public utility within the meaning of Section 201(c). We must consider the point of dual control but only insofar as it may be applicable to the appeals at bar, in view of the provisions of Section 201(a) restricting federal regulation, and the legislative history of Part II of the Act. *The authority of the Board of Public Utility Commissioners of New Jersey must be deemed to be paramount* in those matters which may affect the intrastate transmission of electricity and the *authority of the Federal Power Commission must be deemed to be governing* as to those matters which may affect the transmission of electric energy in interstate commerce. 'We cannot presume a conflict between the two regulatory bodies upon the issue of whether or not Jersey Power should have bought the stock of Jersey Central. No conflict is shown upon the present record and none may ever come into existence.''

While the court declared that its concern was to *ascertain the intention of Congress*, it felt that it was doing so by applying to the words of Section 201(b) *their literal meaning.* In a recent case (310 U. S. 534) the U. S. Supreme Court said:

"*To take a few words from their context and with them thus isolated to attempt to determine their meaning, certainly would not contribute greatly to the discovery of the purpose of the draftsmen of a statute*, particularly in a law drawn to meet many needs of a major occupation. There is, of course, no more persuasive evidence of the purpose

of a statute than the words by which the legislature undertook to give expression to its wishes. * * * *When that meaning has lead to absurd or futile results, however, this Court has looked beyond the words to the purpose of the act.*" (All italics in quotations herein supplied.)

That the transmission of electric energy in these exchange transactions between two New Jersey Utilities constituted *the character of transmission* which Congress declared to be necessary to be regulated by the Federal Government, it is difficult to believe. The fact that such transmission may be said to fall within the language of Section 201(c) "applied literally" seems of doubtful consequence in the face of the provision of Section 201(a) that the Federal regulation shall extend "only to those matters which are not subject to regulation by the states." *Plainly*, as the court in its opinion says, *the stock sale transaction was subject to State commission regulation.* If within the reach of Federal power to regulate, Congress chose to direct that the Act should be so construed as to avoid interference with the exercise of State power. In this case, however, the court appears to have held that the stock sale transaction is *subject to regulation both by the New Jersey Commission and by the Federal Power Commission.* How each such commission can exercise "paramount" or "governing" authority over the same transaction, it is difficult to understand. The fact that conflict between the two commissions has not yet arisen does not answer the question. If the construction placed upon the Act by the court brings the Jersey Central under the jurisdiction of the Federal Power Commission, as to that transaction, *either that commission has power to override the decision of the New Jersey Commission, or its decision is not "governing".*

JOHN E. BENTON,
General Solicitor.

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IN THE

Supreme Court of the United States

OCTOBER TERM--1942.

JERSEY CENTRAL POWER & LIGHT COMPANY, Petitioner, v. FEDERAL POWER COMMISSION, Respondent.	No. 299.
NEW JERSEY POWER & LIGHT COMPANY, Petitioner, v. FEDERAL POWER COMMISSION, Respondent.	No. 329.

BRIEF FOR PETITIONERS.

Foreword.

Petitioners Jersey Central Power & Light Company and New Jersey Power & Light Company seek review of an order of the Federal Power Commission which affects both petitioners, in the manner hereinafter described. Before the Federal Power Commission, and in the Court below, the cases were considered upon a single record. The case of each petitioner before the Federal Power Commission was conducted separately, however, and separate petitions for

review and separate briefs were filed in the Court below, which entered separate judgments. (R. 1135). Separate petitions for writs of certiorari were filed in this Court, by Jersey Central Power & Light Company at No. 299, and by New Jersey Power & Light Company at No. 329, October Term, 1942. Although the issues before this Court are not completely identical with respect to each petitioner, in large part they involve the same question, namely, whether Jersey Central Power & Light Company was a "public utility" as defined in the Federal Power Act (49 Stat. 847, 16 U. S. C. A. §791(a)). Accordingly, it was the view of petitioners that the convenience of the Court would be served if a joint brief, rather than separate briefs, were filed.

The use of italics in quoted excerpts indicates emphasis supplied by the writers of this brief.

Reference to Opinions Below.

The opinion of the Federal Power Commission is reported unofficially at 30 P. U. R. (N. S.) 33 (1939) and appears at R. 936-940. The opinion of the Circuit Court of Appeals for the Third Circuit is reported at 129 F. (2nd) 183 (1942) and appears at R. 1113-1134.

Statement of Jurisdiction.

The Federal Power Commission on July 18, 1939 (R. 936) determined that petitioner New Jersey Power & Light Company (hereinafter referred to as "New Jersey Power") had violated Section 203(a) of the Federal Power Act (49 Stat. 849, 16 U. S. C. A. §824b (a)) by reason of its acquisition of 341,350 shares of common stock of Jersey Central Power & Light Company (hereinafter referred to as "Jersey Central") without first having secured authorization of the Commission to do so. The Federal Power Act

(49 Stat. 847, 16 U. S. C. A. §791 (a)), hereinafter sometimes referred to as the "Act," is the federal statute involved in this case, and the jurisdiction of this Court is invoked under Section 313 (b) thereof (49 Stat. 860, 16 U. S. C. A. §825*l* (b)) and Section 240 of the Judicial Code, as amended (43 Stat. 938, §1, 28 U. S. C. A. §347). The Circuit Court of Appeals held that the Determination of Federal Power Commission was an order reviewable under Section 313(b) of the Act (R. 1121-1126). See *Federal Power Commission* v. *Pacific Power and Light Company*, 307 U. S. 156 (1939); *Rochester Telephone Corporation* v. *United States*, 307 U. S. 125 (1939); and *Columbia Broadcasting System, Inc.* v. *United States*, 316 U. S. 407 (1942). The petitions for writ of certiorari to review the decision of the Circuit Court of Appeals herein were granted by this Court on October 12, 1942.

Statement of the Case.

(a) Statement of questions involved.

1. Does an electric company, which does business entirely in one state, and which has never sold or destined any electric energy to anyone outside that state, become a "public utility", within the meaning of the Act, if it supplies some energy (when, as and if it has a surplus) to another electric company within the same state for that company's use and subject to control exclusively by that company, if the latter company has an emergency connection with a third company at the state border and if it may be possible to show, by studies of electrical phenomena, that on a few occasions, and under certain conditions wholly beyond the control of the first-mentioned company, small quantities of electric energy of no commercial significance, which "slopped over" from the wires of the second com-

pany and found their way into the system of the third company in an adjoining state, were actually generated by the first-mentioned company?

2. If the first-mentioned company, its facilities and operations, are subject to regulation by the state in which it is doing business, is it subject to regulation under the Act?

3. Is a "public utility", as defined in the Act, required, in view of the provisions in subsection (a) of Section 201 of the Act, to secure authorization from the Federal Power Commission before acquiring shares of stock in another "public utility", where both companies are corporations organized and operating in the same state, and there exists in such state a governmental body having comprehensive regulatory powers over both companies and, in particular, over the acquisition and transfer of the stock in question, which acquisition and transfer the state body has formally approved?

(b) Nature of proceedings below.

On June 7, 1938, the Federal Power Commission issued an order (R. 1), served on both petitioners, directing petitioner New Jersey Power to submit in writing detailed information concerning the reported acquisition by it on March 14, 1938, of 341,350 shares of common stock of Jersey Central ". . . in apparent violation of Section 203(a) of the Federal Power Act". That section provides generally that no "public utility", as defined in the Act, shall acquire the securities of any other "public utility", without first having secured an order of the Commission authorizing it to do so. New Jersey Power admitted that it was a "public utility", but denied that Jersey Central was a "public utility", and averred that no approval by the Federal Power Commission of such acquisition was required.

The answer of New Jersey Power further averred that its acquisition of the stock had been made after obtaining the approval of the Board of Public Utility Commissioners of New Jersey and a copy of the decision of that Board granting such approval was annexed (R. 5-8). Accordingly, New Jersey Power denied that the acquisition violated Section 203(a) or any other provision of the Act, and denied that it was required to secure authorization from the Federal Power Commission.

By order dated July 5, 1938, the Commission directed that hearings be held in the matter. Jersey Central, named in the caption of the order to show cause, and having been served with notice of the proceeding, petitioned to intervene, denying that it was a "public utility" subject to the jurisdiction of the Commission (R. 15). By order of the Examiner, Jersey Central was made a party to the proceeding (R. 19).

Following the hearings, the Commission, on July 18, 1939, entered its Determination, which held that Jersey Central was a "public utility", as defined in the Act, and that the acquisition by New Jersey Power of stock of Jersey Central was, despite the approval of such acquisition by the Board of Public Utility Commissioners of New Jersey, in violation of Section 203(a) of the Act.

The basis for the assertion of jurisdiction by the Commission is contained in the following finding:

> "The transmission facilities owned and operated by Jersey Central Power & Light Company extending from its substation adjacent to its generating plant in South Amboy, New Jersey, to the south bank of the Raritan River in said State are transmission facilities utilized for the transmission of electric energy in interstate commerce, and therefore, Jersey Central Power & Light Company is a 'public utility' within the meaning of the Federal Power Act;" (R. 939-940).

The facilities referred to above constitute a line about seven-eighths of a mile long (R. 286). While extensive testimony had been taken at the hearings (which lasted for ten trial days) of all phases of Jersey Central's operations, all its facilities and its several connections with other companies, the only facility found by the Commission to be subject to its jurisdiction was the line described in the above finding. On that basis the Commission asserted jurisdiction over Jersey Central.

Within the statutory period, petitions for rehearing (R. 941) were filed with the Commission and denied (R. 963). Following petitions for review under Section 313(b) of the Act (49 Stat. 860, 16 U. S. C. A. §825*l* (b)), the Circuit Court of Appeals for the Third Circuit affirmed the order of the Commission on May 25, 1942 (R. 1135). As stated previously, this Court granted the petitions for certiorari herein on October 12, 1942.

(c) Character of businesses of New Jersey Power and Jersey Central.

Petitioner New Jersey Power is a New Jersey corporation engaged in the business of supplying electricity and gas at retail to consumers in New Jersey. New Jersey Power is subject to regulation by the Board of Public Utility Commissioners of New Jersey (N. J. S. A. 48:2-13), and is also a "public utility", as defined in the Act, by reason of sales of electricity at wholesale directly to companies outside New Jersey.

Petitioner Jersey Central is likewise a New Jersey corporation engaged in the business of selling electricity and gas at retail. *All its customers are in New Jersey* (R. 274) *and neither the company's lines nor its franchise area extend to the border of another state* (R. 296). The Court below expressly found that Jersey Central does not sell any elec-

tric energy whatsoever directly in interstate commerce (R. 1128).

The facilities and operations of Jersey Central are likewise fully subject to regulation by the Board of Public Utility Commissioners of New Jersey (R. 290-2; N. J. S. A. 48:2-13). The record shows in detail the powers exercised by the Board (R. 290-2), which has jurisdiction over rates, accounts, standards of service, extensions of facilities, sales, mortgages, issues and transfers of securities, mergers, and the like.* *The Board passed upon and approved the very transaction which gave rise to this proceeding* (R. 5-8, 291), *and the Court below found that the Board had jurisdiction to do so* (R. 1134). In spite of this finding, and in spite of the provision in Section 201(a) of the Act (49 Stat. 847, 16 U. S. C. A. §824(a)) that federal regulation shall "extend only to those matters which are not subject to regulation by the States", the Court below found (erroneously, as petitioners contend) that Jersey Central is a "public utility", as defined in the Act, and that the Federal Power Commission had jurisdiction over the stock acquisition.

At hearings held before the Federal Power Commission counsel for the Commission introduced evidence with respect to all phases of Jersey Central's operations; in particular, an attempt was made to show that Jersey Central owns or operates facilities for transmitting or selling electric energy in interstate commerce by reason of an interconnection maintained by Jersey Central and New Jersey Power at Boonton, New Jersey (R. 216). This interconnection is infrequently used (R. 217; and see Comm. Exh. No. 2, R. 42, 967, 969) and the Commission itself disregarded the testimony concerning this interconnection and based its findings solely on the seven-eighths of a mile of line already

* See further, *infra*, pp. 75-76, and Appendix A, printed separately.

not have jurisdiction, except as specifically provided in this Part and the Part next following, over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter.

"(c) For the purpose of this Part, electric energy shall be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof; but only insofar as such transmission takes place within the United States.

"(d) The term 'sale of electric energy at wholesale' when used in this Part means a sale of electric energy to any person for resale.

"(e) The term 'public utility' when used in this Part or in the Part next following means any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part."

(e) Physical facilities of Jersey Central and interconnection with Public Service.

Jersey Central owns and operates a generating plant for the production of electficity at South Amboy, on the south side of the Raritan River in New Jersey. (See Intervenor's Exhibit No. 1, R. 272, 1038). The seven-eighths of a mile of transmission line which was the sole basis for the Determination by the Commission that Jersey Central is a "public utility", runs from this South Amboy generating plant to metering equipment at the south bank of the Raritan River, in New Jersey. At that point Jersey Central has a connection with Public Service Electric & Gas Company (hereinafter referred to as "Public Service"), a company not affiliated in any way with Jersey Central or with New Jersey Power (R. 336). Public Service is also a New Jersey corporation engaged in selling electricity and gas at retail, to residents of that state.

At irregular intervals, Jersey Central sells energy to Public Service at this point of interconnection in New Jersey (R. 277, 317-9). At such times as Public Service receives such energy, the latter is conducted in the lines of Public Service under the Raritan River to the Mechanic Street substation of Public Service at Perth Amboy, New Jersey (R. 516). As will shortly appear, the Commission based its determination that *Jersey Central* is a "public utility" entirely upon an investigation of the facilities of *Public Service*, especially the Mechanic Street substation. Consequently, while this facility neither belongs to nor is subject in any way to control by Jersey Central, it was, in the view of the Court below, the crucial factor in determining the status of Jersey Central. Hence it will be described in some detail.

(f) The Mechanic Street substation of Public Service.

A substation is a distribution center in an electric system. Electricity is received in the substation at a facility known as the bus bar. Energy may then flow from the bus bar to other points on the electric system, either with or without intermediate changes in force or voltage. The Mechanic Street substation is one of 54 substations in the "Northern Zone" of Public Service (all 54 substations are in New Jersey), and is one of seven substations in the "Central Division" of that zone (R. 103, Commission Exhibit No. 10, R. 103, 982). From this substation, Public Service has lines running to its Metuchen substation and switching station, and lines to its Carteret and Keasby substations, and thus to lines throughout its territory in New Jersey (R. 518). The substations at Metuchen, Carteret and Keasby are themselves connected to generating plants and substations, so that the Mechanic Street substation is an integral part of the general Public Service transmission

referred to (R. 939). The Commission's unwillingness to rely on the testimony in question is understandable in view of the admission of its witness that he had not traced any energy from Jersey Central to any state outside New Jersey through the interconnection at Boonton (R. 231).

In the same way, much testimony was introduced by counsel for the Commission with respect to an interconnection by Jersey Central with Public Service Electric & Gas Company at Wrightstown, New Jersey. This testimony was also disregarded by the Commission for the same reason, namely, that its witness stated flatly that he had not traced any energy from Jersey Central to another state through the interconnection at Wrightstown (R. 252).

Further testimony which was also disregarded by the Commission related to the operation of Jersey Central in synchronism with not only New Jersey Power and Public Service, but with various companies in Pennsylvania and Maryland. Operation in synchronism means no more than that the generators of each company are spinning at identical speeds and in such a manner that there is a coincident pulsation of the electric voltage or power (R. 537). In spite of elaborate testimony in the record, the Commission did not refer to the matter of synchronized operation in its findings and did not base its order thereon. Here again the Commission's witness admitted he had not traced any energy to Pennsylvania (R. 236, 182-3) and indeed the record shows that not a single kilowatt of energy ever flows over any interconnection merely because of synchronism (R. 537).

In the Court below counsel for the Commission endeavored to show that despite the absence of findings by the Commission these three topics still possess some significance. The Court below made no mention of them whatever except to point out in a footnote (R. 1117-18) that: "Though much

emphasis is laid by some of the Commission's witnesses on the phenomenon of synchronization, it does not possess significance under the facts of the appeals at bar except to the extent indicated in the opinion." The body of the opinion merely refers to the existence of synchronized operation (as it does to the fact that the Wrightstown and Boonton interconnections exist), without more. Hence the considerable part of the record devoted to these subjects may be disregarded in considering the issues before this Court.

(d) Statutory Provisions:

The provisions of the Act pertaining to the definition of the term "public utility" are as follows (49 Stat. 847-8, 16 U. S. C. A. §824):

> "Section 201. (a) It is hereby declared that the business of transmitting and selling electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation of matters relating to generation to the extent provided in this Part and the Part next following and of that part of such business which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States.
>
> "(b) The provisions of this Part shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line. The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall

and distribution circuits—one of many points on the general service loops of Public Service, whose facilities and operations are much more extensive than those of Jersey Central, or any of the other companies involved in this case (R. 103, 693 ff., Comm. Exh. Nos. 9 and 10, R. 102, 981, 103, 982).

The bus bar of Public Service in the Mechanic Street substation has ten taps. Beginning at one end of the bus bar there is a tap to General Cable Corporation, a large customer of Public Service at Perth Amboy, New Jersey. Next, there is a tap connected to a line which eventually leads to the interconnection with Jersey Central at the south bank of the Raritan River, in New Jersey. Then there is a tap connected to the Public Service circuit leading to its substation at Carteret, New Jersey, and following this is one of the taps connected with the Metuchen substation of Public Service, in New Jersey. The fifth tap leads to a transformer for the local distribution of energy in and around Perth Amboy. In approximately the middle of the bus bar there is an oil circuit breaker, which can be used to isolate the above taps from those which follow. Continuing on the opposite side of the circuit breaker, there is a tap for the second of the two lines to Metuchen, and following that a second line for the local distribution of electricity in Perth Amboy. There follows an airbrake switch in the bus bar, and then a tap for a line from Staten Island Edison Corporation (hereinafter referred to as "Staten Island"), a company engaged in selling electricity at retail in Staten Island, New York. The next succeeding tap is another general circuit of Public Service, this one from its Keasby, New Jersey, substation. The last tap connects with a second line to General Cable Corporation (R. 517-8, Comm. Exh. Nos. 8 and 9, R. 101, 980, 102, 981).

There are thus four places on the bus bar where it is joined with the general circuits of Public Service in New Jersey, over all of which lines energy flows daily to and from the bus bar. In addition, there are four other taps on the bus bar to serve the Perth Amboy local load of Public Service and one of Public Service's large industrial customers. The switches and circuit breakers on the bus bar are normally closed, but the control of these switches and the ability to isolate some of the taps from others is, of course, entirely in the hands of Public Service.

(g) Relation of Jersey Central to Public Service.

Jersey Central and Public Service have entered into a contract whereby one agrees to supply the other in the event of an emergency (R. 275, 1039). However, Public Service has never had occasion to require emergency energy under such contract, and during a period of more than twelve months prior to March 14, 1938 (the date of the stock aequisition in question), Jersey Central took no emergency power from Public Service (R. 288).

Practically all the energy transferred by Jersey Central to Public Service is sold under an informal oral arrangement and is known as "economy flow". This arrangement is not based on any written contract, but is merely the result of an understanding between the operators of Jersey Central and Public Service, due to the fact that while each company has ample capacity to serve all its customers (R. 324, 355), such service may require the use of generators which are at the particular time less efficient than those available to the other company. When this differential in production costs will occur is an unpredictable matter, since it depends on the varying loads put upon each system, and the production costs of each company. However, when the load dispatchers of each company discover that one has energy

available, and that there is a differential in production costs, the company with the more costly production may request the other to furnish the cheaper energy to it at slightly more than cost. Under the economy flow arrangement a request for energy may or may not be complied with, and the flow may be cut off at any time (R. 276, 285, 318).

Jersey Central supplies economy flow energy to Public Service relatively frequently (R. 324) but the money involved is comparatively insignificant. As the Court below pointed out:

> "Public Service receives economy-flow current almost daily from Jersey Central but it should be noted that Jersey Central's net receipts from the sale of economy-flow current for the year 1937 were about $10,000 while its net income from all the electricity sold by it during the same period amounted to $4,170,585. Jersey Central in fact is principally engaged in the retail sale of electricity to numerous individual customers in its territory." (R. 1117)

As stated previously, the Court below found that Jersey Central does not sell any electric energy whatsoever directly in interstate commerce (R. 1128). Furthermore, the record is absolutely clear that Jersey Central has no connections of any kind with Staten Island—no contracts, formal or informal, no arrangements, no "understandings", nothing (R. 285, 292-3, 332, 453-4). The Court below expressly stated: "There were no commercial transactions whatsoever between the Staten Island Company and Jersey Central" (R. 1133).

(h) Relation of Public Service to Staten Island.

Staten Island is likewise not affiliated in any way with Public Service. At the hearings, an officer of Staten Island

testified the company had ample generating capacity of its own in excess of its peak loads (R. 371-2). However, in order to provide for emergency situations, Staten Island has a line connected to a submarine cable which runs under the Arthur Kill, a body of water separating New Jersey from New York (R. 348). At mid-channel, the cable is connected to a line owned by Public Service, which line leads into the Mechanic Street substation of Public Service at Perth Amboy, New Jersey. This line joins the bus bar through one of the ten taps described in detail above. There are circuit breakers, disconnecting switches and meters on both the Staten Island side and at the Mechanic Street substation. Normally these facilities are operated closed at both ends, but here again the control and physical ability to change the arrangements of switches and circuit breakers is entirely outside the hands of Jersey Central (R. 348).

The function of this connection between Staten Island and Public Service was described by Mr. J. H. Lytle, engineer in charge of operations of Staten Island, who testified that the connection—

> "... has been operated primarily to supply Staten Island in case of the breakdown of facilities ... When our facilities are back to normal, we notify them that the emergency period has ended. That is the principal use of the interconnection, the principal reason for it." (R. 349)

Even for emergency purposes, the interconnection has been rarely used. During the entire period from August 26, 1935 (the effective date of the Act), to March 14, 1938 (the date of the stock acquisition in question), there were only ten occasions when the connection was used for emergency service, and on four of the ten occasions the period of time involved was so small that no kilowatt-hours were recorded (R. 349).

Public Service has also, on a few occasions during this period, sold economy flow energy to Staten Island. As shown by the record (R. 355-60, Resp. Exh. No. 3, R. 360, 1071), the quantity of energy involved in these economy flow transactions between Staten Island and Public Service has been quite insignificant (R. 525). All the economy flow energy taken by Staten Island from Public Service during the period from August 26, 1935 to March 14, 1938, would be about enough to run a 25-horsepower motor during the same period (R. 525). No economy flow whatever was taken for long periods, *e. g.*, from April 30, 1937, to the date of the stock acquisition in question, March 14, 1938 (Resp. Exh. No. 3, R. 360, 1071, 1073).

Apart from the infrequent occasions when emergency or economy flow energy passed between Public Service and Staten Island, the two companies attempted to prevent *any* energy from flowing across the interconnection. Instead of accomplishing this by opening the switch, however, the companies maintained the line connected but "in balance" (R. 361-2, 411). If the switch were kept open, and an emergency arose, it might take some time to close the connection and secure the emergency supply of energy (R. 362). Even a relatively short delay would be serious (R. 408). The load dispatcher of the company requiring the emergency energy would have to communicate with the load dispatcher of the other company, and the latter would then be required to make arrangements to close the switch and make all the other arrangements necessary to connect the systems and increase the amount of energy being generated. The delay involved in making these arrangements was avoided by maintaining the interconnection closed, and at the same time energy was prevented from flowing from one company to the other by maintaining the line "in balance", that is, the respective system generating stations were

operated so as to satisfy each system's load requirements without the use of the interconnection. This was accomplished by regulating the amount of steam admitted to the turbo-generators connected to the interconnection, in relation to the load put upon each system (R. 361-3, 409-11).

The testimony in this case shows in detail the constant efforts to maintain the line in balance, as described above. Staten Island has a watt-hour meter attached exclusively to the line connecting it with Public Service, so that the Staten Island operators know immediately if the balance has been disturbed (R. 361) and are enabled to take steps to restore it (R. 362). The line may be thrown out of balance by the fact that when a sudden demand is made for more energy on one system, there is a slight time lag before the generators on the system automatically pick up this load. There is a tendency on the part of the system on which the demand has been made to draw on the other system during the brief fraction of time between the demand and the compensating generator speed-up. During this interval, some energy may "slop over" from one system to the other. (R. 245-6, 413) The process of keeping the line in balance was described by Mr. J. H. Lytle, chief of operations of Staten Island as follows, in answer to questions asked by counsel for the Commission:

> "A. I will answer that by telling you what they do. The man who has charge of the System operation has a watt meter before him.
>
> "Q. Let us place that man. Where is he? A. He is at the St. George Substation. He controls the System. He has a watt meter connected to the interconnection. It doesn't measure anything else. It is on separate wires. That is before him all the time. It reads two ways, power flowing out from Staten Island Edison or flowing into Staten Island Edison. When he sees that move either way he immediately

calls the power house, the switchboard attendant at the power house at Livingston on a private line, a line that is connected at all times, and tells him to pick up so much load or drop so much load.

"They generally do it on account of the size of the meter in blocks of 500. Actually he doesn't call up. They have worked out a system of rings, two rings to drop 500, like that, they don't even have to telephone. I never have timed it. The instructions are followed promptly and it will take the time it takes for the men to do it. It is not complicated.

"Q. What happens at the generating plant when they get the instructions? A. The man himself who gets the signal can adjust the governor on the turbine.

"Q. How long does that take? A. A few seconds.

"Q. What does the generator do? A. Either takes on more load or drops more load.

"Q. Does the generator operate instantaneously? A. Nothing mechanical operates instantaneously. It operates in a couple of seconds. The governing mechanism is driven by an electric motor. It would take a few seconds.

"Q. The reason you go through these various steps is to try to balance the load on your System with what you are generating, isn't that correct? A. The reason is to reduce to a practical minimum what is slopped over." (R. 410-411)

As the line moves in and out of balance, surges or swings of energy "slop over" the closed connection from one company to another. For the most part, these swings of "slop-over" energy, as it is known in the industry, are pulsations of momentary duration (R. 286, 361-3, 520-1). Slop-over energy is regarded as a nuisance in the operation of an electric system, since the swings of energy dart rapidly from one system to another, are uncontrollable, unwanted and unreliable.

By its very nature, slopover energy is, of course, entirely without commercial significance (R. 362-3, 400, 465). The nuisance of slopover energy is regarded as an incident to the maintenance of a ready interconnection for emergencies (R. 362, 407).

The constant effort to keep the line in balance is shown by the fact that in a given period of time, almost exactly the same quantity of energy was recorded as slopping over from Public Service to Staten Island as from Staten Island to Public Service (Res. Exh. No. 5, R. 366, 1075). For the difference over a period of one year, Public Service paid $115.56, the bare cost of production to Staten Island (*id.*, R. 367).

It need hardly be pointed out that *Jersey Central* has no control over the pulsations of slop-over energy (or any other energy) from Public Service to Staten Island or vice versa. In fact, if Jersey Central did not exist, slop-over would nevertheless occur from time to time between Staten Island and Public Service, as long as the connection between the two companies was kept closed; indeed, the Staten Island-Public Service interconnection was established in 1925 (R. 367), six years before the South Amboy plant of Jersey Central was even constructed (R. 273). Finally, the record shows that it is not possible for Jersey Central to route or direct *any* electricity into Staten Island, even if it should want to, since control of the flow from Mechanic Street substation rests entirely in Public Service (R. 516).

(i) Analysis by Federal Power Commission Staff of Mechanic Street substation operations.

For purposes of the present proceeding, the Federal Power Commission through its staff conducted a detailed investigation of the facilities and operations of the Central Division of Public Service, particularly the Mechanic Street

substation. The very examination made by the Commission to reach its conclusion that Jersey Central owns facilities "utilized for" transmission of energy in interstate commerce illustrates strikingly the fact that if any energy generated by Jersey Central found its way to Staten Island, this occurrence was unknown and unintended by Jersey Central, was beyond the control of Jersey Central, and did not constitute commerce or interstate commerce.

Public Service's operators at Mechanic Street substation take "log" readings at forty-two stated times of the day, to record the flow of energy, at the moment of the reading, in and out of the substation through the ten connections or taps on the bus bar. The Commission examined the log readings during the period from January 26, 1937 to September 6, 1938, or a total of approximately 25,500 such readings (R. 266). (The period of time selected was entirely the choice of the Commission.) From these 25,500 readings, the Commission selected 184,* or seven-tenths of 1%, not at random but deliberately and admittedly (R. 266) with the view of proving that some energy generated by Jersey Central reached Staten Island via Public Service. The basis for the selection of these 184 instances is important and was described in the words of the Commission's own witness as follows:

> "Q. . . . Then you have taken some 150 readings out of approximately 25,000 readings. Just why did you take these particular 150, Mr. Grimsley? A. At times when considerable power was going over from Jersey Central and for the same period it was going to Staten Island. *That was necessary to make my determination.* Now we might get 15,000, I don't know, to compare with those, *but the point was to*

* The Commission's witness Grimsley spoke of 150 instances, but actual count discloses 184 (Comm. Exh. No. 11, R. 108, 983).

establish certain conditions at time of flow and at times when there was no energy flowing to Staten Island there was no point in taking those readings.

"Q. These are hand-picked readings where you worked toward a particular result and you selected those that would best show what you desired to establish? A. *I was trying to get a condition when the energy was coming over from Jersey Central and flowing to Staten Island and over a period that might be considered typical.*

"Q. Just a moment—— A. (interposing) I don't know unless we go through all of them and compare them with these.

"Q. I suppose it would be pretty easy to pick out 150 other examples when power is flowing from Metuchen substation to Staten Island supplying the Mechanic Street load, would it not? A. Oh, I think so, yes. Maybe more" (R. 266).

In view of this description of how the 184 instances were selected, it is difficult to find any basis for the implication by the Court below (R. 1119) that the selections were "representative". Although the Commission's witness conceded that, so far as he knew, there were many instances among the 25,500 when no energy was flowing from Jersey Central to Public Service, or from Public Service to Staten Island, all of such latter log readings were disregarded.

After selecting the 184 instances suitable to them, the Commission's engineers made a detailed analysis of the energy supplied to and the demand made upon not only the Mechanic Street substation, but all seven substations of the Central Division of Public Service at each of the 184 points of time (Comm. Exh. No. 13, R. 144, 1002). The Commission's engineers also made studies of the power factors at each of the seven substations at the time of "ordinary heavy load condition" (R. 116), and studied the line im-

pedances throughout the Central Division of Public Service (R. 117). All of these substations are, of course, the property of Public Service, and Jersey Central has neither access to nor control over their operation. When these data were assembled and analyzed, the Commission reached the conclusion (set forth in Comm. Exh. No. 16A, R. 764, 1004) that in 24 of the 184 instances (selected in turn from the 25,500), there were *moments of time* when all the energy flowing into Mechanic Street came from Jersey Central, and that since, at the same moments, some energy flowed from Mechanic Street to Staten Island, such energy must have come from Jersey Central. The evidence of the Commission does not disclose the *duration* of the flow or the *quantity* of energy supposedly transferred from Jersey Central to Staten Island. The Court below said:

> "*How much* of the electricity which flowed from Public Service to the Staten Island Company originated in Jersey Central's South Amboy generators and passed over the connecting line from South Amboy to the Mechanic Street Substation and thence through the bus-bar to the Staten Island Company *no one can say.* It is certain that some did go to the Staten Island Company. *Measured in terms of the KWH generated and transmitted by large electric public utility systems it was small*" (R. 1121).

Moreover, the record is clear that in every instance among the 24 which occurred during the period from August 26, 1935 (the effective date of the Federal Power Act) to March 14, 1938 (the date of the stock acquisition in question), energy generated by Jersey Central could have escaped to Staten Island from Public Service's lines only as slop-over energy, while the two companies were attempting to keep their interconnection in balance and thus prevent *any* flow. (Compare Comm. Exh. No. 16A, R. 764, 1004, with

Resp. Exh. Nos. 2 and 3, R. 353, 1070 and 360, 1071). On this evidence,* the Commission made its finding that Jersey Central owns facilities "utilized for" the transmission of energy in interstate commerce (R. 939), and held Jersey Central subject to its jurisdiction under the Federal Power Act. This conclusion was affirmed by the Court below.

Specification of Errors Intended to be Urged.

Petitioners Jersey Central and New Jersey Power specify as errors the adverse holdings of the Court below with reference to the questions presented as Nos. 1, 3, and 4 of the petition for writ of certiorari of petitioner Jersey Central (see Jersey Central petition, pp. 8-9), and questions I, I-a, I-b, I-c, III, and IV of the petition for writ of certiorari of petitioner New Jersey Power (see New Jersey Power petition, pp. 11-13), such errors being more particularly the following:

1. The Court below erred in holding that petitioner Jersey Central is a "public utility" as defined in Section

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* At the hearings in this matter the Commission introduced evidence in an attempt to show that interstate transmission of energy took place from Staten Island to Jersey Central. Comm. Exh. No. 18 (R. 130, 1009), covering a total of 17 log readings, was first introduced. Upon objection by petitioners that all the times selected were subsequent to March 14, 1938, the date of the stock acquisition in question, Comm. Exh. No. 18A (R. 758, 1010) was offered, covering 27 log readings during the period January 1, 1937 to March 14, 1938. Commission witness Grimsley stated (R. 132) that if Jersey Central is receiving from Public Service an amount of energy in excess of the total energy coming into Mechanic Street from Metuchen, then necessarily a *part* of the energy moving from Public Service to Jersey Central must come from Staten Island. That condition occurred exactly once (subsequent to March 14, 1938) in all the log readings included on both exhibits. The Court below gave no effect whatever to this phase of the Commission's case.

201 of the Federal Power Act (49 Stat. 847, 16 U. S. C. A. §824).

2. The Court below erred in holding that petitioner Jersey Central, whose business is wholly intrastate and which neither sells nor transmits electricity directly in interstate commerce, became a "public utility" within the meaning of the Act in transmitting electric energy wholly within the State of New Jersey to Public Service, if Public Service had a connection, in the same state, with Staten Island over which it (Public Service), independently of petitioner Jersey Central, sold and transmitted electric energy in interstate commerce, and if scientific studies of electrical phenomena indicated that on relatively few occasions, under peculiar operating conditions and wholly beyond the control of petitioner Jersey Central, small quantities of electric energy generated by petitioner Jersey Central were found in the system of Staten Island in an adjoining state.

3. The Court below erred in holding that a company, otherwise engaged wholly in intrastate commerce, engages in interstate commerce by reason of the acts or omissions of other, non-affiliated persons, not its agents, over whom no control is exercised, and whose activities are conducted without its knowledge.

4. The Court below erred in holding that the transmission of electric energy over facilities located wholly within a single state constitutes transmission *in* interstate commerce without proof of a continuous movement of energy from one state to another, and without proof of any intention, express or implied, that the movement of energy should be interstate.

5. The Court below erred in holding that the transfer of energy by Jersey Central to Public Service constitutes

transmission *in* interstate commerce despite the delivery in the State of New Jersey of all such energy to the general network of Public Service, and the commingling of such energy with energy admittedly generated by Public Service.

6. The Court below erred in holding that an electric company wholly subject to regulation by a state was not excluded from federal regulation by the terms of Section 201(a) and (b) of the Act (49 Stat. 847, 16 U. S. C. A. §§824(a) and (b)).

7. The Court below erred in failing to hold that Section 201(a) of the Act (49 Stat. 847, 16 U. S. C. A. §824(a)) restricts or limits the scope of the definition of interstate commerce in Section 201(c) of the Act (*idem*), and in failing to hold that the said section limits the scope of the definition of "public utility" in Section 201(e) of the Act (*idem*) and the consequent jurisdiction of the Commission with respect thereto.

8. The Court below erred in holding that despite the provisions of Section 201(a) of the Act (49 Stat. 847, 16 U. S. C. A. §824(a)), and its legislative history, the Commission could exercise jurisdiction over petitioner Jersey Central with respect to a "matter" which the Court below found was subject to regulation by the State of New Jersey, and which the appropriate regulatory body of the State of New Jersey had approved.

9. The Court below erred in holding that despite the provisions of Section 201(a) of the Act (49 Stat. 847, 16 U. S. C. A. §824(a)), and its legislative history, the Commission could exercise jurisdiction over petitioner New Jersey Power with respect to a "matter" which the Court below found was subject to regulation by the State of New Jersey, and which the appropriate regulatory body of the State of New Jersey had approved.

Summary of Argument.

The issue in this case is solely one of statutory construction, and involves the meaning of the Federal Power Act in so far as that statute delegates regulatory jurisdiction to and withholds it from the Federal Power Commission. The only question is what Congress did—not what it could have done.

Petitioners contend:

I. That petitioner Jersey Central is not a "public utility" as defined in the Act, and that therefore petitioner New Jersey Power could acquire the stock of Jersey Central without the approval of the Federal Power Commission.

This proposition is supported by the following:

A. The internal evidence in the Act. An analysis of the provisions of the statute demonstrates that the Act is clear in its indication of Congressional intent to forego regulation of a company such as Jersey Central.

B. The external evidence provided by a comparison of the Act with other statutes enacted with a view toward federal regulation of an activity or a business, when Congress intended to exercise fully its broad powers under the Commerce Clause of the Constitution. This comparison leads to the conclusion that Congress intended to regulate electric transmission only when such transmission occurred directly *in* interstate commerce.

C. The legislative history of the Act when it was before Congress. This involves an examination of the debates, statements of committee chairmen, the record of committee hearings, and the reports of the appropriate congressional committees, supplemented by consideration of the additions and deletions to the bill in the Senate and House, after the hearings.

D. The meaning in the Act of the phrases "in interstate commerce" and "in intrastate commerce" as developed by this Court. The premise of this analysis is that Congress legislated within a pattern which can be clarified by showing the judicial construction of the phrases used in the statute. The argument does not challenge the constitutional powers of Congress under the Commerce Clause. It involves a discussion of state tax cases, through or local rate cases, and other types of cases; in which transportation is by steps or phases. It concludes that intention of and control by the shipper or transmitter as to the point of destination determines the interstate or intrastate character of the commerce.

II. That Congress excluded Jersey Central from the operation of the statute by the enactment of Section 201(a) of the Act.

This proposition is supported by the following:

A. Section 201(a) of the Act excludes from the jurisdiction of the Commission persons all of whose facilities and operations are subject to regulation by a state.

B. The facilities and operations of petitioner Jersey Central are subject to regulation by the State of New Jersey.

C. Section 201(a) of the Act is the declaration of Congressional policy, defines the scope of the Act, and must be read with every other section of the Act.

III. That approval by the New Jersey Board of Public Utility Commissioners of the acquisition by New Jersey Power of the stock of Jersey Central excludes jurisdiction over such transaction by the Federal Power Commission.

This proposition is supported by the following:

A. Section 201(a) of the Act excludes from the jurisdiction of the Commission transactions which are subject to regulation by a state.

B. The acquisition by New Jersey Power of the stock of Jersey Central was subject to regulation by the State of New Jersey and was in fact approved by the New Jersey Board of Public Utility Commissioners.

IV. The judgments of the Circuit Court of Appeals should be reversed for cumulative or alternative reasons.

A. Petitioner Jersey Central is not a "public utility" as defined in the Act; and the stock acquisition was subject to effective State regulation. For both these reasons, the Federal Power Commission was without power to enter its order.

B. Petitioner Jersey Central is not a "public utility" as defined in the Act. If the Court so determines, there is no need to pass upon the jurisdiction of the Federal Power Commission over the stock acquisition.

C. The stock acquisition, being subject to effective State regulation, is not subject to the jurisdiction of the Federal Power Commission. If the Court so determines, there is no need to determine the status of petitioner Jersey Central.

POINT I.

Jersey Central is not a "public utility" as defined in the Federal Power Act.

(a) Scope of the Federal Power Act.

The Federal Power Act and the Public Utility Holding Company Act of 1935 together constitute the "Public Utility Act of 1935". This statute had for its objective the imposition of federal regulation over certain phases of the gas and electric industry. The provisions and purposes of the Federal Power Act, however, differ markedly from those of the Public Utility Holding Company Act of 1935, in spite of the fact that they were adopted as parts of a single statute. In the case of *holding* companies, not themselves directly engaged in the utility business, but owning securities of subsidiary operating companies located in many states, the general view was that regulation by the states could not effectively reach such companies, and required implementation by comprehensive federal action.* Consequently, Congress conferred broad powers on the Securities and Exchange Commission to "meet the problems and eliminate the evils . . . connected with public utility holding companies which are engaged in interstate commerce *or in activities which directly affect or burden* interstate commerce" (49 Stat. 803, §1(c), 15 U. S. C. A. §79(a).) It is to be noted that one of the chief purposes of the Public Utility Holding Company Act of 1935 was the *contraction* of large holding company systems, controlling facilities in many widely separated states. In their place the statute

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* The arguments made, and the literature with respect to this controversy are collected and analyzed in *Federal Regulation of Holding Companies: The Public Utility Act of 1935*, 45 Yale L. J. 468, 481, Footnote 56.

contemplated the emergence of smaller, geographically integrated systems, following state lines where economically feasible, *in order to secure the advantages of localized management and effective regulation by the states.* (Public Utility Holding Company Act of 1935, Sections 2(a)(29)(A) and 11(b)(1), 49 Stat. 810, 820, 15 U. S. C. A. §§79b and 79k.)

In the case of *operating* utility companies principally supplying electricity at retail, a different type of regulation was imposed. The business of these operating companies is generally confined to one state or at most a few states. Furthermore, at the time of the passage of the Federal Power Act regulatory bodies with varying powers were already in existence in 47 states. (Hearings, House of Representatives, Committee on Interstate and Foreign Commerce, H. R. 5423, 74th Cong., 1st Sess., 496-7; these Hearings will hereafter be referred to as "House Hearings"). The bill which became the Federal Power Act was prepared under the direction of the Federal Power Commission (House Hearings, p. 400). Representatives of that Commission, who participated in this task, recognized unequivocally that the advantages of regulation by local authorities were considerable, and should be preserved and complemented to the extent made necessary by *Public Utilities Commission* v. *Attleboro Steam & Electric Co.*, 273 U. S. 83 (1927) (*Id.*, pp. 497-8). Commissioner Seavey, a member of the Federal Power Commission, thus testified before the House Committee on Interstate and Foreign Commerce:

> "There is incorporated in the act a clear pronouncement of the congressional policy which was adopted when the Communications Act was passed, and that is that matters largely of a local nature, even though interstate in character, should be handled locally and should receive the consideration of local

men familiar with the local conditions in the community involved". (House Hearings, p. 393)

Mr. Dozier DeVane, Solicitor to the Federal Power Commission and one of the draftsmen of the original bill (House Hearings, p. 553), testified as follows:

> "There has been considerable discussion here as to what is the purpose of this legislation and the effect it will have upon States and upon State regulation, and in that connection, I wish to say that in the instruction to its representatives that participated in the preparation of this legislation, the Federal Power Commission directed that what it desired to recommend to Congress was legislation that would complement and not supersede State regulation.
>
> "*Our specific instructions, from our Commission, was* [sic] *to preserve to the fullest extent State regulation and to draw a law that would complement that regulation as far as Congress could go.*" (House Hearings, p. 495)

The provisions of the Federal Power Act defining a "public utility" are found in Section 201, printed at pages 9 and 10, *supra*. They evidence plainly the background referred to above:

> (i) Subsection (e) of Section 201 defines a "public utility" to be a person who owns or operates facilities subject to the jurisdiction of the Commission.
>
> (ii) Subsection (b) of Section 201 provides that the Commission shall have jurisdiction over facilities for the transmission of electric energy in interstate commerce or for the sale of electric energy at wholesale in interstate commerce. *The same subsection specifically provides that*, with certain exceptions which are not material, *the Commission shall not have jurisdiction over facilities used for the genera-*

tion of electric energy or over facilities used in local distribution or *only for the transmission of electric energy in intrastate commerce,* or over facilities for the transmission of electric energy consumed wholly by the transmitter. Furthermore, subsection (a) of Section 201 declares that federal regulation (through the Federal Power Commission) of the "transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce" is necessary in the public interest, except that such regulation shall "extend *only* to those matters which are *not subject to regulation by the States*".

(iii) Subsection (c) states that "electric energy shall be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof."

(iv) Subsection (d) defines the term "sale of electric energy at wholesale" to mean a sale of electric energy to any person for resale.

Subject to the limitations contained in Section 201, the Commission is given jurisdiction, among other things, over rates (Sections 205 and 206), adequacy of service (Section 207), valuation of property (Section 208), sales of facilities, mergers and acquisition of securities of other public utilities (Section 203). Section 204 gives the Commission jurisdiction to pass upon the issuance of securities, and Section 301 gives the Commission jurisdiction over accounting matters. The Act contains provisions for determinations of cost, for investigations, for hearings, for the making of orders and for judicial review thereof.

In addition, the Act makes elaborate provision for cooperation by the Federal Power Commission with the various state bodies. A state may request the Federal Power Commission to compel a connection for the sale of electric

energy in interstate commerce by a private utility (Section 202). On request of a state, the Commission may investigate the cost of production and transmission of electricity, even where the Commission has no jurisdiction over the sale of such energy (Section 206(b)). Provision is made for hearings before joint boards composed of members of a state commission or commissions and the Federal Power Commission, and the latter is even empowered to lend its employees to the state commissions (Section 209).

(b) Nature of Issue Presented.

This examination of the provisions of the Federal Power Act discloses that: (1) Congress did not attempt to confer upon the Commission the broadest jurisdiction possible under Article I, Section 8, Clause 3 of the Constitution; (2) only persons owning or operating facilities for the transmission of electric energy, or sale at wholesale of electric energy, *in* (and not merely affecting) interstate commerce are "public utilities"; and (3) the Commission's power to regulate extends only to such matters as are not subject to regulation by the states, so that

(a) where all the facilities and operations of an electric company are subject to regulation by the states, the Federal Power Commission has no jurisdiction, i.e., no power to regulate, such facilities, and the company is not a "public utility"; and

(b) where a company is a "public utility", by reason of the character of its facilities and operations, a particular transaction consummated by such company is excluded from the jurisdiction of the Commission if such transaction is subject to state regulation.

It is petitioners' contention under Points I and II that under the specific terms of the Act, Jersey Central is not a "public utility", as defined therein, since Jersey Central

does not own or operate facilities for the transmission of electric energy, or sale of electric energy at wholesale, in interstate commerce, and all the facilities of Jersey Central, and their operation, are subject to regulation by the State of New Jersey. Point III supports the proposition that the Commission had no jurisdiction to pass upon the acquisition of stock of Jersey Central by New Jersey Power, in view of the approval of such transaction by the New Jersey Board of Public Utility Commissioners.

Neither the Commission nor the Court below found that Jersey Central owns or operates any facilities for the *sale* of electric energy at wholesale in interstate commerce. The Court below specifically said:

> "It is, of course, beyond dispute that Jersey Central itself sells no electricity directly in interstate commerce * * * the jurisdiction of the Commission must rest upon Jersey Central's ownership and operation of facilities for *transmission* of electricity * * *" (R. 1128).

The record amply supports this view, the soundness of which was conceded by the Commission in the Court below. The only issue before this Court, so far as this point of petitioners' case is concerned, is whether Jersey Central owns or operates facilities for transmitting electricity in interstate commerce.

(c) Jersey Central neither owns nor operates facilities for transmission in interstate commerce.

The Act limits federal regulation to facilities for transmission *in* interstate commerce. It does not attempt to regulate all activities which may possibly be "intertwined with" or "affect" interstate commerce. The Act thus confers a distinctly narrow jurisdiction. In *Federal Trade*

Commission vs. *Bunte Bros., Inc.*, 312 U. S. 349 (1941), this Court, in referring to this very distinction, said:

> "The construction of §5 urged by the Commission would thus give a federal agency pervasive control over myriads of local businesses in matters heretofore traditionally left to local custom or local law. Such control bears no resemblance to the strictly confined authority growing out of railroad rate discrimination. An inroad upon local conditions and local standards of such far-reaching import as is involved here, ought to await a clearer mandate from Congress. The problem now before us is very different from that which was recently presented by *United States* vs. *Darby, ante*, p. 100. We had there to consider the full scope of the constitutional power of Congress under the Commerce Clause in relation to the subject matter of the Fair Labor Standards Act. *This case represents the narrow question of what Congress did, not what it could do.* And we merely hold that to read 'unfair methods of competition in [interstate] commerce' as though it meant 'unfair methods of competition in any way affecting interstate commerce', requires, in view of all the relevant considerations, much clearer manifestation of intention than Congress has furnished" (pp. 354-5).

Likewise, in the present case, it is important to determine precisely what powers Congress undertook to exercise, and not what Congress might have done under the "full scope" of the Commerce Clause. It is particularly important that the Act shall not be construed so as to constitute an "inroad upon local conditions", in view of the *express* denial by Congress in Section 201(a) of any intention to interfere with local matters.

The necessity for determining exactly the extent and type of control sought to be exercised by Congress was

again adverted to by this Court in *Kirschbaum* vs. *Walling*, 316 U. S. 517 (1942), where the Court said:

> "We cannot, therefore, indulge in the loose assumption that when Congress adopts a new scheme for federal industrial regulation, it thereby deals with all situations falling within the general mischief which gave rise to the legislation. Such an assumption might be valid where remedy of the mischief is the concern of only a single unitary government. It cannot be accepted where the practicalities of federalism—or, more precisely, the underlying assumptions of our dual form of government and the consequent presuppositions of legislative draftsmanship which are expressive of our history and habits—cut across what might otherwise be the implied range of the legislation. Congress may choose, as it has chosen frequently in the past, to regulate only part of what it constitutionally can regulate, leaving to the States activities which, if isolated, are only local. • • • The history of Congressional legislation regulating not only interstate commerce as such but also activities intertwined with it, justifies the generalization that, when the federal government takes over such local radiations in the vast network of our national economic enterprise and thereby radically readjusts the balance of state and national authority, those charged with the duty of legislating are reasonably explicit and do not entrust its attainment to that retrospective expansion of meaning which properly deserves the stigma of judicial legislation". (pp. 521-2)

In the present case, the Court below found, as petitioners conceded, that some energy generated by Jersey Central and sold to Public Service escaped from the facilities of Public Service to Staten Island (R. 1133). The Court held that this constituted the operation by Jersey Central of facilities "in fact employed for" transmission

in interstate commerce within the meaning of subsection (c) of Section 201, "if the words of the subsection be applied literally" (R. 1133). Accordingly, it was held that Jersey Central is a "public utility".

Petitioners urge that this reasoning misconstrues subsection (c), and that Jersey Central owns no facilities for transmitting electric energy in interstate commerce, under a "literal" or any other construction of subsection (c).

The Act states that a company is a "public utility" only if it owns or operates facilities *for the transmission* of electric energy in interstate commerce or *for the sale* of electric energy at wholesale in interstate commerce. The Court below justifiably held that "the jurisdiction of the Commission, if any, must rest upon Jersey Central's ownership and operation of facilities for *transmission* of electricity" (R. 1128). It is implicit in this criterion, as laid down by Congress, that it is the *purpose for which* the facilities are owned or operated which is determinative of their status. A person owning or operating facilities for the transmission of electric energy must own the facilities which transmit—send across—the energy, and this connotes voluntary, intentional action. The Congressional expression is closely akin to the tests frequently stated by this Court for determining whether a given transaction is interstate, namely, whether its "essential character" is interstate (*Pennsylvania Railroad Co.* v. *Clarke Bros. Coal Mining Co.*, 238 U. S. 456, 468 (1915)), or whether the "normal contemplated and followed course" is interstate (*Western Union Telegraph Co.* vs. *Foster*, 247 U. S. 105, 113 (1918)).

The facts in the present case refute any possibility of a finding that the seven-eighths of a mile of line from the South Amboy plant of Jersey Central in New Jersey was designed for or intended for or utilized for transmission in

interstate commerce, or that its "essential character" is interstate. The record is uncontradicted that the function of this line was to provide an emergency source of power (R. 349), such as every well operated electric system possesses, and to permit the disposition of "economy flow" energy to Public Service in New Jersey. The chief operating officer of Jersey Central testified without contradiction that when Jersey Central delivers energy to Public Service, the former has no knowledge what Public Service does with the energy and that there are no arrangements of any kind, formal or informal, to deliver such energy to anyone other than Public Service (R. 285, 293). The operating head of Staten Island, which had been interconnected with Public Service for years before the South Amboy plant of Jersey Central was even constructed, testified as to the complete lack of any arrangement or understanding between Staten Island and Jersey Central, and in fact, stated that Staten Island's transactions with Public Service were not in any way related to Jersey Central; that "All our negotiations, all our agreements, all our talks with them . . . led us to believe that it was power generated by Public Service Electric and Gas Company" (R. 363). The Court below stated flatly: "*There were no commercial transactions whatsoever between Staten Island Company and Jersey Central*" (R. 1133).

In addition to this uncontradicted testimony of the persons actually operating Staten Island and Jersey Central, a consideration of the arrangement of the physical facilities themselves indicates that the function of the seven-eighths of a mile of line owned by Jersey Central is not for the transmission of electric energy in interstate commerce. In the first place there are no less than ten connections on the Public Service bus bar at Mechanic Street. In addition to the tap connecting with Jersey Central, eight of the remaining

connections are to points in New Jersey, and of these, four are to other Public Service substations in New Jersey, which are used constantly to supply customers of Public Service located in New Jersey. Only one of the ten connections leads to a second state, and that connection, as we have indicated elaborately in the statement of facts (*supra*, pp. 16-19), is a seldom used emergency connection, and is maintained almost continuously "in balance", with every effort being made to prevent any energy whatsoever from flowing across the connection. It is clear, therefore, that the "essential character" and purpose of the Jersey Central connection with Public Service is intrastate (Section 201(b)), and the connection is not for transmission "from a state" (Section 201(c)).

Far from showing any intentional "sending across" of energy from New Jersey, the present record makes it plain that if energy generated in New Jersey by Jersey Central reached New York State, it did so unknown to Jersey Central, and by means of and over facilities not in any way subject to control by Jersey Central. In addition, Jersey Central and Public Service are not in any way affiliated, and there is no question of any agency relationship. The facts in this record make is clear, therefore, that Jersey Central owns no facilities whose function is interstate in character, and, in addition, engages in no activity which can properly be described as transmission "from a State".

(d) The intent of Congress to exclude a company such as Jersey Central from the jurisdiction of the Federal Power Commission is revealed by a comparison of the jurisdictional provisions of the Act with analogous provisions of other Federal statutes.

The construction of the Act which we urge confers a narrow jurisdiction on the Commission. This, however, was a matter entirely for Congress to determine. Where

Congress has chosen to enact legislation embodying an exercise of the full scope of the Commerce Clause, it has used appropriate and explicit language to that effect. We have already referred to the jurisdictional provisions in the Public Utility Holding Company Act of 1935 (*supra*, p. 29). That Act and the Federal Power Act were separate titles of a single statute. The following statutes illustrate the "empiric process of congressional legislation under the Commerce Clause", and the "degree of accommodation" made by Congress according to the subject matter of the legislation, its history and the procedures established for its administration. (*Kirschbaum* v. *Walling*, 316 U. S. 517, 520 (1942).)

Thus, where Congress has determined to legislate broadly, with respect to all persons or activities in the stream of interstate commerce, it has used language such as the following:

> ". . . a transaction in respect to any article shall be considered to be in interstate commerce if such article is part of that *current of commerce* usual in the commodity trade whereby commodity and commodity products and by-products thereof are sent from one State with the *expectation* that they will end their transit, after purchase, in another . . ." (Commodity Exchange Act, 42 Stat. 998, 7 U. S. C. A. §3.)

For almost identical language evidencing the intention of Congress to exercise its powers under the Commerce Clause on a broad, all-inclusive scale, see the *Tobacco Inspection Act*, 49 Stat. 731, 7 U. S. C. A. §511(i); *Federal Seed Act*, 53 Stat. 1275, 7 U. S. C. A. §1561(a)(3)(4); *Perishable Agricultural Commodities Act*, 50 Stat. 725, 7 U. S. C. A. §499a(8); *Packers and Stockyards Act*, 42 Stat. 159, 7 U. S. C. A. §183; *Agricultural Adjustment Act*, 50 Stat. 248, 7 U. S. C. A. §610(j).

Where it is the desire of Congress to legislate with respect to persons or activities "affecting" or "burdening" interstate commerce, appropriate language has likewise been found for this purpose. Thus, the *Railway Labor Act* (53 Stat. 1404, 45 U. S. C. A. 51) covers any employee of a carrier, any part of whose duties as employee is in "furtherance" of interstate commerce, or whose employment shall "in any way directly or closely and substantially affect such [interstate] commerce." Similarly, the *Fair Labor Standards Act* (52 Stat. 1060, 29 U. S. C. A. §202), undertakes to eliminate conditions which "burden commerce and the free flow of goods in commerce"; and the *Agricultural Adjustment Act* (50 Stat. 246, 7 U. S. C. A. §608b) empowers the Secretary of Agriculture to enter into marketing agreements with persons engaged in handling any commodity "in the current of interstate or foreign commerce or which directly burdens, obstructs, or affects", interstate commerce. The *Bituminous Coal Act* (50 Stat. 83, 15 U. S. C. A. §834), asserts jurisdiction over *intrastate* commerce which "in any manner directly affects interstate commerce in coal."

The above statutes make it plain that the jurisdiction conferred by Congress upon the Federal Power Commission was extremely narrow in extent, limited to transactions *in* interstate commerce. In fact, the present version of subsection (c) of Section 201 was intended as a *limitation* on transmission *in* interstate commerce, since it excludes transmission between points within the same state but through a second state. The original bill (S. 1725, 74th Cong. 1st Sess.) included both. This limitation has been recognized by the Commission itself, in *Matter of Chicago District Electric Generating Co.*, F. P. C. Opinion No. 63, July 16, 1941. Since we are concerned only with what Congress did and not what Congress might have done, the

conclusion is clear that in the case at bar Jersey Central energy was transmitted "only . . . intrastate" (Section 201(b)) and was not "transmitted from a State", within the meaning of subsection (c) of Section 201, and that Jersey Central is, therefore, not a public utility.

(e) The legislative history of the Federal Power Act.

It is petitioners' contention that the definition of "public utility" contained in the Act does not include such a company as Jersey Central, and that, on the contrary, under the express terms of the Act it is excluded from this category. Beyond this, the legislative history of the Act removes any possible doubt that this conclusion is correct.

Petitioners have referred (*supra*, p. 30) to the statement by Commissioner Seavey, of the Federal Power Commission, that the original bill (drafted largely by the staff of the Federal Power Commission), contained a "clear pronouncement of congressional policy" that matters largely of a local nature, even though interstate in character, should be handled locally. To the suggestion that the Act include by its provisions some such doctrine as that enunciated in the *Shreveport* case (*Houston & E. W. Texas R. Co.* v. *United States*, 234 U. S. 342 (1914)), Commissioner Seavey made the following reply before the House Committee on Interstate and Foreign Commerce:

> "I have already discussed the Shreveport matter, under questions, but I would like to say further that one of the reasons, and the principal reason to my mind, that there is no need of a Shreveport provision in this bill as there is in the Interstate Commerce Act, is that the nature of the utility service is entirely different. Your electric utility has been constructed in a different way. It started with a purely local service. *It is still, to all intents and purposes, outside of those interstate contacts, pri-*

> *marily a local service* and the property of these utilities can be very clearly separated into the component parts of the different operations. That is, you can separate the transmission; you can separate the production; you can separate the distributing systems very clearly. So that that being possible, the application of rates so that a reasonable return may be received upon any part of that property is possible in the electric industry. In the railroads it is not." (House Hearings, p. 399.)

Petitioners do not desire to recount here the many arguments and considerations involved in the question of federal, as compared with state, regulation of the utility business. It is enough to point out that preceding the enactment by Congress in 1935 of the Federal Power Act there had been the fullest and most extensive discussion of the subject in the literature, in the industry, and in Congress itself. See *Ellsbree, Interstate Transmission of Electric Power* (1931), pp. 161-197, and see the list of earlier Congressional efforts on the subject in House Hearings, pp. 492-4.

The conclusion reached by Congress after considering elaborate testimony presented to both the Senate and the House Committees was that the regulatory powers then exercised by the states should be preserved and indeed strengthened; that the only need for federal regulation was that disclosed by *Public Utilities Commission* vs. *Attleboro Steam and Electric Company*, 273 U. S. 83 (1927), where it was held that a state could not regulate the rate charged for electric energy sold and transmitted directly across a state line, concededly in interstate commerce. While a state could, of course, regulate the retail distribution of electricity generated and sold in the same state, and indeed could regulate the retail sale of energy after it was received in the second state (*Pennsylvania Gas Company*

vs. *Public Service Commission*, 252 U. S. 23 (1920); *Mill Creek Coal & Coke Co.* v. *Public Service Commission*, 84 W. Va. 662 (1919); and see *South Carolina Power Company* vs. *Commission*, 52 Fed. (2d) 515 (1931), aff'd 286 U. S. 525 (1932), the *Attleboro* case left a "gap" in utility regulation, which the states could not, and, before the Act, the Federal Government did not, regulate.

That the purpose of the Act was to close this "gap", and complement rather than supersede regulation by the states, is disclosed over and over again in the legislative history of the statute. Thus, Commissioner Seavey, of the Federal Power Commission, presented the following analysis to the House Committee, which was considering the original, much broader, draft of the Act:

> "The new title II of the act is designed to secure coordination on a regional scale of the Nation's power resources and to fill the gap in the present State regulation of electric utilities. It is conceived entirely as a supplement to, and not a substitute for State regulation." (House Hearings, p. 384.)

Mr. Dozier DeVane, Solicitor to the Federal Power Commission and one of the draftsmen of the original bill, testified as follows:

> "At the outset of my discussion of title II, I pointed out the provisions in connection with the jurisdiction conferred by this title, called attention to the fact that insofar as rates were concerned, the title conferred jurisdiction upon the Federal Power Commission over wholesale rates that were not subject to control by State commissions under the decision of the Supreme Court in the Attleboro case. I also called attention to the fact that this bill preserves in the State commissions the power to regulate retail rates even where the power is transmitted in interstate commerce, and which might be

> regulated by this Commission; that we had reserved to the States the principle announced by the Supreme Court of the United States in the Pennsylvania Gas Co. case; that insofar as facilities were concerned, that the jurisdiction conferred upon the Federal Power Commission was that the Commission should have jurisdiction over transmission facilities that were used in interstate commerce and production facilities that were connected with such transmission facilities." (*Id.*, p. 518) [Subsequently, the bill was amended by eliminating Federal Power Commission jurisdiction over production facilities.]

In spite of these avowed limits on the jurisdiction conferred upon the Commission, the provisions of the original bill were broad and encountered considerable opposition. The bill as introduced (Senate Bill 1725) gave the Commission power to establish regional districts and control the production and transmission of electric energy (Section 203(a)), and control any addition or even repair to the facilities of a public utility (Section 203(b)).

With respect to persons subject to the Commission's jurisdiction, the bill as originally drawn provided in Section 201(a):

> "The provisions of this title shall apply to the transmission and sale of electric energy in interstate commerce and to the *production* of energy for such transmission and sale, but shall not apply to the retail sale of energy in local distribution. The Commission shall have jurisdiction over all facilities for such transmission, sale, and/or production of energy by any means and over all facilities *connected therewith as parts of a system of power transmission situated in more than one State* . . ." (S. 1725, 74th Cong. 1st Sess., February 6, 1935):

Section 201(a), as it then read, did not contain the present provision that federal regulation is limited "to those mat-

ters which are not subject to regulation by the States." Witnesses before the Senate and House Committees pointed out that the broad provisions of Section 201(a) would subject to the Commission's jurisdiction many companies which do not engage in the business of selling or transmitting electric energy across a state line, but which were, at least indirectly, connected with "a system of power transmission situated in more than one State". The following testimony, given before the Senate Committee on Interstate Commerce, indicates the witness's apprehension of the broad jurisdiction proposed to be conferred, and the position of Congressional proponents of the bill that even the original draft was intended to impose jurisdiction only where a company sold energy directly across a state line, i.e., was engaged in the business declared to be interstate in the *Attleboro* case.

> "Mr. MacLane. . . . I shall not review these sections in detail, but I want to read from Section 201, which declares expressly that Federal jurisdiction shall extend not only to transmission and sale of energy in interstate commerce, but to the production of energy for such transmission and sale. The Federal Power Commission is given jurisdiction over all facilities for such transmission, sale, and/or production of energy by any means and over all facilities connected therewith as parts of a system of power transmission situated in more than one State, except facilities for the retail distribution of electric energy.
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> . . . . . .
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> ". . . A glance at the second map which I have inserted at the end of the memorandum will show you how far-reaching this jurisdiction is. Every line upon this system from the western boundary of Texas, Nebraska, Kansas, and the Dakotas clear to the Atlantic seaboard and from the Great Lakes to the Gulf is a part of an interconnected system ex-

tending into more than one State, and in most cases covering this entire map with complete interconnection except possibly some breaks at the Allegheny Mountains.

"This language gives to the Federal Power Commission here in Washington jurisdiction over that whole transmission network; and not only over the whole transmission network, but over every power plant connected with that network.

"The Chairman. You take it that it would have power over electrical energy which was just transmitted and used within the borders of a State?

"Mr. MacLane. If it is transmitted over this network, yes, sir; as I read the bill.

"The Chairman. *On what theory would they have jurisdiction? It is not a question of what the language in the bill may be, which would be broader than necessary, but after all, they would have no jurisdiction over purely intrastate electric energy.*

"Mr. MacLane. I think not.

"The Chairman. Or over a company that was doing a purely intrastate business?

"Mr. MacLane. I think not; but the bill, which is all I have to go by, gives to this Commission jurisdiction over the facilities for such transmission, sale, and/or production of energy and over all facilities connected therewith as parts of a system" (Hearings, Senate Committee on Interstate Commerce, S. 1725, 74th Cong., 1st Sess., pp. 338-339).

The bill as finally adopted struck out as facilities subject to the Commission's jurisdiction "production" facilities, and facilities "connected" with "a system of power transmission situated in more than one State." At the same time, as will be indicated in more detail below, the jurisdiction of the Commission was in many other respects greatly narrowed. It is difficult to reach any conclusion

but that the Congressional committees were impressed by the testimony which indicated that if jurisdiction were imposed on companies which did not themselves sell energy in interstate commerce, but were "connected" with other companies which eventually might have an interstate connection, the jurisdiction of the Commission would be extended far beyond the purposes of the proposed bill. It is surprising, therefore, to find the Federal Power Commission contending, as it did in its brief in the Court below (p. 19), that "It is the position of the Federal Power Commission that all facilities whatever their nature, constituting the closed circuit between the point of generation and the local distribution lines by means of which electric energy is afforded a pathway across state lines, and the person owning or operating the same are subject to the jurisdiction of the Commission". Seemingly, this flies in the face of the fact that Congress deliberately eliminated from the Commission's jurisdiction "connected" facilities, referred to in the original draft of the Act. The "literal" construction of Section 201(c) by the Court below likewise would create just the situation which Congress showed a clear intention to avoid.

Probably the most significant opposition to the bill in its original form came from the National Association of Railroad and Utilities Commissioners. That Association has for its membership the regulatory bodies of all the states, and indeed of many federal regulatory agencies as well. The Association endorsed federal regulation to close the "gap" in utility regulation. However, upon the appearance of the original draft of the bill, conferring broad jurisdiction on the Federal Power Commission, representatives of the Association went before the Senate and House Committees and voiced their opposition to the bill in its then form. The

Association accompanied its criticism with proposed amendments restricting the jurisdiction of the Federal Power Commission to those things which were beyond the constitutional powers of the state to regulate. The Honorable H. Lester Hooker, Chairman of the Corporation Commission of the Commonwealth of Virgina and then Chairman of the Legislative Committee of the Association, testified as follows:

> "Our association favors strict and adequate regulation by the States to the full extent of their power and by the Federal Government only to the extent that the power of the States cannot control" (House Hearings, p. 1610).
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> • • • • • •
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> "We propose to submit to this committee amendments, which will be intended to have the effect of preserving for the *exclusive* jurisdiction of the State commissions the regulation of certain matters, which are now, or may be, covered by State laws insofar as operating companies are concerned, such as the issuance of securities, management, and other service contracts, agreements between operating companies and affiliates with respect to the purchase and sale of property, and further providing, in accordance with the policy of the Federal Water Power Act, that whenever a State has laws dealing with the regulation of certain phases of the relations between the operating companies and the holding companies, the authority of the State shall be exclusive.
>
> "It has been repeatedly stated, by all of the representatives of the proponents of this bill who have appeared before this committee, that the avowed purpose of this legislation is merely to 'supplement', or to 'fill in a gap' in State regulation, and not to supplant, supersede, or duplicate the regulation within the power of the States in any respect. It

has been stated time and again by the proponents that it is their desire to leave unaffected and unimpaired the entire field to the maximum extent to which the States may be able to deal with this matter. This is the expressly avowed purpose of section 217 of title II of title II; according to Dr. Splawn, who was very specific on this point in his statement on the holding company section, and Commissioner Seavey and Mr. DeVane, of the Federal Power Commission, are likewise very specific with regard to title II and III of title II" (*Id.*, p. 1611).

* * * * * *

"We favor the regulation by the Federal Power Commission of service and rates for the sale at wholesale in interstate commerce of electric energy and natural gas, but we do not favor titles II and III of title II, as drawn in this bill covering these matters, because the bill, as drawn, goes far beyond the mere regulation of the service and rates with respect to the transmission and sale of electric energy and gas at wholesale, which is the only gap in State regulation of the operating companies. Titles II and III of title II substantially substitute Federal regulation and control for State regulation over nearly all important power plants and transmission lines, which constitute the greater part of the properties of the operating companies" (*Id.*, p. 1612).

Mr. John E. Benton, General Solicitor of the National Association of Railroad and Utilities Commissioners, also testified with respect to the position of the Association, and presented amendments proposed by the Association to meet the objectives outlined by Commissioner Hooker. Mr. Benton stated the general position of the Association as follows:

"It is our position that Congress should fill in the gap and provide for regulation of wholesale rates

both in the case of gas and electricity for the protection of the consumer, and for the protection of the stockholder of the operating utility" (House Hearings, p. 1629).

"We have, accordingly, sought to make it as clear as language will that Congress does not in this case intend to regulate anything except interstate power, sold at wholesale." (House Hearings, p. 1638).

Mr. Benton referred to the fact that President Roosevelt, in creating the National Power Policy Committee, said with reference to legislation to be enacted by Congress:

"Since a number of the States have commissions having jurisdiction over interstate power matters, it is necessary that whatever plan is developed should have regard to the powers of these various State Commissions as well as of the States in general" (*Id.*, p. 1638).

With respect to the jurisdiction proposed to be conferred on the Federal Power Commission by the bill in its original form, Mr. Benton proposed, on behalf of the Association, that the draft be amended so as to make clear that the existing jurisdiction of the States was preserved, and that jurisdiction should be exercised by the Federal Power Commission only in matters beyond the powers of the states under the Constitution. The amendment proposed by Mr. Benton is reprinted below, together with Section 201 of the bill as originally drafted (H. R. 5423), and Section 201 (a) of the Act as finally adopted.

Section 201 of Original Bill (H. R. 5423)

"Section 201. (a) The provisions of this title shall apply to the transmission and sale of electric energy in interstate commerce and to the production of energy for such transmission and sale, except where such electric energy is sold for use within the State in which it is generated. The Commission shall have jurisdiction over all facilities for such transmission/ sale, and/or production of energy by any means and over all facilities connected therewith as parts of a system of power transmission situated in more than one State, except facilities for the retail distribution of electric energy . . . Every person who owns or operates facilities subject to the jurisdiction of the Commission under this title and every person who controls, directly or indirectly, any such person, shall be subject to the provisions of this Act. The term 'public utility' when used in this Act means any person who owns or operates such facilities."

Proposed Amendment of N. A. R. U. C.

"Section 201. (a) It is hereby declared that the business of generating, transmitting, and selling electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation, in accordance with the provisions of this title, of that part of said business which is not subject to regulation by the States is necessary in the public interest. It is recognized, however, that the overwhelmingly preponderant part of the electric business is intrastate and local; and nothing contained in this title shall be construed to extend Federal regulation to that part of said business which is subject to regulation by the States."

Section 201(a) as f enacted

"Section 201. (a) hereby declared th business of tra ting and selling el energy for ultima tribution to the p is affected with a p interest, and that eral regulation of ters relating to ge tion to the extent vided in this Par the Part next follo and of that part of business which co of the transmissio electric energy in i state commerce and sale of such energ wholesale in inte commerce is nece in the public inte such Federal re tion, however, to ex only to those ma which are not su to regulation b States."

After the public hearings, the Senate Committee on Interstate Commerce discarded the *entire* original bill, and submitted to the Senate a new bill (S. 2796) conferring much narrower jurisdiction upon the Federal Power Commission. Senator Wheeler, Chairman of the Committee, and a co-sponsor of both the Federal Power Act and the Public Utility Holding Company Act of 1935, stated in the Committee's report (Sen. Rep. No. 621, 74th Cong., 1st Sess.):

> "As has been stated, the committee has liberalized title II of the original bill and endeavored to remove all possible grounds for the charge that it imposes harsh or burdensome restrictions upon the electric industry. *The revision has also removed every encroachment upon the authority of the States.* The revised bill would impose Federal regulation only over those matters which cannot effectively be controlled by the States. The limitation on the Federal Power Commission's jurisdiction in this regard has been inserted in each section in an effort to prevent the expansion of Federal authority over State matters" (p. 18).

The House Committee on Interstate and Foreign Commerce imposed limitations on the jurisdiction of the Federal Power Commission beyond those added by the new Senate bill. In fact, the House Committee discarded the Senate bill and introduced a new bill (House Act, S. 2796, adopted June 24, 1935) which excluded from the jurisdiction of the Commission generating or production facilities, as well as jurisdiction over facilities "connected with" "a system of power transmission situated in more than one state". At the same time Section 201(a) was changed to include the provision that federal regulation should extend "only to those matters which are not subject to regulation by the States". On this version of the bill, Chairman Ray-

burn reported as follows (H. R. Rep. No. 1318, 74th Cong., 1st Sess.):

> "Under the decision of the Supreme Court of the United States in *Public Utilities Commission* vs. *Attleboro Steam & E. Co.*, (273 U. S. 83), the rates charged in interstate wholesale transactions may not be regulated by the States. *Part II gives the Federal Power Commission jurisdiction to regulate these rates.* A 'wholesale' transaction is defined to mean the sale of electric energy for resale and the Commission is given no jurisdiction over local rates even where the electric energy moves in interstate commerce . . . " (p. 7)
>
> "The bill takes no authority from State commissions . . . The new parts are so drawn as to be a complement to and in no sense a usurpation of State regulatory authority . . . *Probably, no bill in recent years has so recognized the responsibilities of State regulatory commissions as does title II of this bill.*" (p. 8)

It is ironical that Jersey Central has been held to be a "public utility" even though subject to regulation by a state commission which has comprehensive regulatory powers (see *infra*, pp. 75-77, and Appendix A to this brief, printed separately), and which "recognized the responsibilities of State regulatory commissions" by the carefully considered conditions imposed on the approval of the stock transfer in the case at bar (R. 7-8). It is difficult, if not impossible, to read the legislative history of the Act without concluding that such a company as Jersey Central was not intended to be included in the definition of "public utility", since its operations are wholly intrastate and do not involve any "gap" in regulation. The Congressional intent is equally clear that the jurisdiction of the states was to be preserved in every way, and that where a state had jurisdiction over a given transaction such as

the stock acquisition approved by the New Jersey Board of Public Utility Commissioners in this case, that jurisdiction was not to be superseded or interfered with by federal regulation.

(f) The intent of Congress to exclude a company such as Jersey Central from the jurisdiction of the Federal Power Commission is revealed by judicial construction of the phrases "in interstate commerce" and in "intrastate commerce".

In pursuing the question of Congressional intent, in order to ascertain the meaning of Section 201 of the Act, it is helpful to resort to opinions of this Court determining when transportation is "in interstate commerce" or "in intrastate commerce". (See, for instance, subsection (b) of Section 201, granting and withholding jurisdiction). In this portion of the argument, petitioners do not suggest that a narrow construction should be given to the constitutional powers of Congress under the Commerce Clause. That question has been resolved in favor of the national legislature by the recent decisions of this Court in *Wickard* v. *Filburn*, 11 U. S. L. W. 4011 (November 9, 1942) and in the six cases cited by Mr. Justice Jackson in his opinion therein:

United States vs. *Darby*, 312 U. S. 100 (1941);
Gray v. *Powell*, 314 U. S. 402 (1941);
Wrightwood Dairy Co. v. *United States*, 315 U. S. 110 (1942);
Cloverleaf Co. v. *Patterson*, 315 U. S. 148 (1942);
Kirschbaum v. *Walling*, 316 U. S. 517 (1942);
Overnight Transportation Co. v. *Missel*, 316 U. S. 572 (1942).

The question of Congressional intent is all important. As stated by Mr. Justice Frankfurter in *Federal Trade Commission* v. *Bunte Bros., Inc.*, 312 U. S. 349 (1941):

"This case presents the narrow question of what Congress did, not what it could do . . .". (P. 356).

It is important to note that in both subsections (a) and (b) of Section 201 of the Act, the phrase "*in* interstate commerce" is used to describe the relationship to commerce of facilities which are subject to the jurisdiction of the Commission, and in subsection (b) the phrase "in intrastate commerce" is used to determine what facilities are *not* subject to commission jurisdiction. To determine the meaning of this particular usage, it is proper to resort to the decisions of this Court to clarify the pattern in which Congress legislated.

An attempt will be made to use analogies comparable to the facts here involved, taken from various types of decisions of this Court. These decisions deal with various facets of the question whether transmission "in interstate commerce" is involved in the transmission of a commodity by A to B within one state, and in the further transmission of such commodity by B to C in another state.

State Tax Cases

The leading case on this type of problem as it has been presented in state tax cases is *Coe* v. *Errol*, 116 U. S. 517 (1886). Logs had been shipped down stream in New Hampshire with the intention on the part of the shipper of ultimate shipment from New Hampshire to Maine. At Errol, New Hampshire, they stopped in the river awaiting further transportation. It was held that the logs were subject to local taxation by Errol, and that to determine whether the logs were in interstate commerce, the test is: When do they "commence their final movement for transportation from the state of their origin to that of their destination"?

Petitioners submit that *Coe* v. *Errol* cannot be minimized as a "tax" case*, nor as being limited or modified by the cases which have reaffirmed the plenary *constitutional* powers of the national legislature first expounded by Chief Justice Marshall in *Gibbons* v. *Ogden*, 9 Wheat. (22 U. S.) 1 (1824). Nor does the delay in *Coe* v. *Errol* distinguish it from the case at bar, since delay is important only because from it arises the possibility of control of disposition in the state of origin. In the transmission of electricity in the instant case, such power of disposition is completely out of the control of the petitioner, Jersey Central, and it is within the sole control of Public Service, which owns the bus bar and which has the power of keeping energy completely away from Staten Island at any time. In *Coe* v. *Errol* the Court wrote:

> "The carrying of them in carts or other vehicles, or even floating them, to the depot where the journey is to commence is no part of that journey. That is all preliminary work, performed for the purpose of putting the property in a state of preparation and readiness for transportation. Until actually launched on its way to another State, or committed to a common carrier for transportation to such State, its destination is not fixed and certain. It may be sold or other-

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* See *Atlantic Coast Line* v. *Standard Oil Company*, 275 U. S. 257 (1927), a rate regulation case, decided on authority of *General Oil Company* v. *Crain*, 209 U. S. 211 (1908), a tax case. See also the statement of Representative Cole, 79 Congressional Record, page 10386, commenting on *South Carolina Power Co.* v. *South Carolina Tax Commission*, 52 Fed. (2nd) 515 (1931), affirmed, 286 U. S. 525 (1932), and stating that tax cases were considered as authority by the House Committee on Interstate and Foreign Commerce for delimiting "interstate commerce" in the Federal Power Act. See also *McCluskey* v. *Marysville & N. R. Co.*, 243 U. S. 36 (1917), an employer's liability case decided on the authority of *Coe* v. *Errol*.

> wise disposed of within the State, and never put in course of transportation without the State. Carrying it from the farm, or the forest, to the depot, is only an interior movement of the property, entirely within the State, for the purpose, it is true, but only for the purpose, of putting it into a course of exportation; it is no part of the exportation itself. Until shipped or started on its final journey out of the State its exportation is a matter altogether *in fieri* and not at all a fixed and certain thing." (p. 528)

It should be noted too that in *Coe* v. *Errol*, exportation was intended by the shipper—even while the goods were in the river itself—and yet the Court held that the commerce was intrastate until exportation was *a fixed and certain thing*. In the instant case routing at the bus bar of *Public Service* determines the course of disposition of all energy coming to the bus bar from any source, and therefore Public Service, not Jersey Central, transmits energy "from a State."

Comparable to *Coe* v. *Errol* and following it are:

> *Diamond Match Co.* v. *Ontonagon*, 188 U. S. 82 (1903);
> *New York* v. *Knight*, 192 U. S. 21 (1904);
> *General Oil Co.* v. *Crain*, 209 U. S. 211 (1908);
> *Bacon* v. *Illinois*, 227 U. S. 504 (1913);
> *Minnesota* v. *Blasius*, 290 U. S. 1 (1933);
> *Federal Compress and Warehouse Co.* v. *McLean*, 291 U. S. 17 (1934).

On the other hand, if the shipment is by a seller across a state line to an agent of the seller who is thereafter to make deliveries to the purchaser at various places within the same state as the agent, the goods, during this entire period of transit, are held to be in interstate commerce, beyond the taxing power of the state, for the reason that

they were *destined* to each of the several points of ultimate delivery (*Western Oil Ref. Co.* v *Lipscomb*, 244 U. S. 346 (1917); or if oil or gas is shipped by a seller within a single state, under a contract which itself contemplates further transportation to points outside the state, the shipment is interstate (*United Fuel Gas Co.* v. *Hallanan*, 257 U. S. 277 (1921); see also *Eureka Pipe Line Co.* v. *Hallanan*, 257 U. S. 265 (1921)*); or if the intention of the owner and the absence of "*control* . . . to change destination" is clearly indicative of interstate transportation, it will be held such. (*Champlain Realty Co.* v. *Brattleboro*, 260 U. S. 366, 377 (1912)) Note, however, that if the seller parts with control in a given state, the transaction is intrastate even though customarily the buyer takes the article to a second state, the seller being "indifferent" to such second transporta-

* The *Hallanan* cases referred to by the Court below (R. 1133) involved the validity of state statutes taxing pipe line owners on the transportation of oil or gas from one state to another. From 80% to 90% of the oil carried in the pipe lines moved directly to the second state. Under those circumstances, the Court held that the movement of the oil in the pipe line was a movement in interstate commerce and not taxable since "the transmission of this stream of oil was interstate commerce from the beginning of the flow, and that it was none the less so that if different orders had been received by the pipe line it would have changed the destination upon which the oil was started and at which in fact it arrived. We repeat that the pipe line company not the producer was the master of the destination of any specific oil. Therefore its intent and action determined the character of the movement from its beginning, and neither the intent nor the direction of the movement changed" (p. 272). Unlike the situation in case at bar, the tax in the *Hallanan* case was directed against the pipe line company and not the original producer, and it was the intent and control, exercised by the pipe line company as the agency which actually directed the flow of oil across the state line that determined the character of the commerce. In the case at bar it is Public Service, not the "producer" Jersey Central, which is the master of the destination of the energy.

tion (*Superior Oil Co.* v. *Mississippi*, 280 U. S. 390 (1930)). Of comparable significance is *Department of Treasury* v. *Wood*, 313 U. S. 62 (1941), in which this Court held that "the transactions [sales of railroad ties] were nonetheless intrastate activities because the ties thus sold and delivered were *forthwith* loaded on railroad cars" which immediately transported the ties into another state.

Through or Local Rate or Service Cases.

The problem of what is "in interstate commerce" arises in the determination of the proper rate to be charged when a shipment of goods goes through intrastate and interstate, or interstate and intrastate, journeys or phases successively. Such cases as *Gulf, etc. R. Co.* v. *Texas*, 204 U. S. 403 (1907), and *Public Utilities Commission* v. *Landon*, 249 U. S. 236 (1919) are of this type.

In *Gulf, etc. R. Co.* v. *Texas, supra*, a car of grain had originated in South Dakota, and was sold to a firm of commission merchants in Kansas City, who had it shipped to themselves at Texarkana, Tex. En route the grain was sold as at Texarkana to a third party, who used it to fill an order from his own purchaser further on in Texas. The Court held that the local rate should be charged for the last leg of the journey from Texarkana.

In *Public Utilities Commission* v. *Landon, supra*, the Court held that sale of gas at the burner tips by a company which had purchased it from another company which had piped the gas into the state, was in intrastate commerce, since the interstate commerce was said to end upon the introduction of the gas into the service pipes of the distributor. See also *East Ohio Gas Co.* v. *Tax Commission*, 283 U. S. 465 (1931), a tax case.

These decisions are explained in *Illinois Natural Gas Co.* v. *Central Ill. Pub. Serv. Co.*, 314 U. S. 498 (1942), in

relation to the enactment by Congress of the Natural Gas Act (52 St. 821, 15 U. S. C. A. §717). In that case an application for service for local distribution by an Illinois company from a wholly owned subsidiary of an interstate company was held to be subject to national rather than state regulation. The Natural Gas Act contains no section comparable to subsection 201(a) of the Federal Power Act. Nor does it contain a section comparable to subsection 201(b) of the Act. The Court held that the mechanical test of reduction of pressure formerly applied to these gas cases would not apply to the particular question of regulation here involved. The gas moved in a continuous flow from an interstate company through the pipes of its wholly owned subsidiary to the proposed point of distribution to the local company. Referring to a long term contract for the supply of gas by the parent to the subsidiary the Court wrote:

> "Pursuant to the *mutual agreement* of the two companies, the gas is transported in continuous movement through the pipe line into the state and through appellant's pipes to the service lines of the distributors, where appellant delivers it to them." (p. 503).

In *such a transaction*, the particular point at which the title and custody of the gas pass to the purchaser, without arresting its movement to *the intended* destination, does not affect the essential interstate nature of the business (pp. 503-504).

In *Southern Pacific Co.* v. *Arizona*, 249 U. S. 472 (1919) a traveling show had applied in Tucson, Arizona, to the Southern Pacific Company to transport eighteen cars from Tucson to Phoenix via Maricopa. The railroad company refused, alleging that it had a contract with another person not to carry any other show for a period of thirty days, and because it would only serve at interstate rates. The traveling show applied for relief to the state commission, which fixed an intrastate rate. Concededly, the show was in

transit from El Paso, Texas, through Arizona and New Mexico to California. The Court said:

> "... it is plainly impossible to say that the property and persons constituting the shipment of the shows here involved were in progress of interstate transportation when the Arizona Commission entered its order on March 25 that the company should accept the intrastate shipment from Tucson to Phoenix. For at that time the shows were in the exclusive *possession and control of the owner*, exhibiting for six days at Tucson, and the application to the Southern Pacific Company, which was refused, shows, incontrovertibly, that the transportation to Tucson had terminated, and that no other transportation had been contracted for" (p. 477).

In the case at bar, petitioner Jersey Central had no intention or knowledge that its intrastate transmission to Public Service would, by a most unusual combination of circumstances, be transmitted by Public Service to Staten Island. Again, in a problem of this kind, it is *control of destination* which is determinative. A rest or pause is evidence of control; no more, no less.

In *Oregon-Washington R. & Nav. Co.* v. *Strauss & Co.*, 73 F. (2d) 912 (1934), cert. den. 294 U. S. 723 (1935), which involved the application of interstate or intrastate freight rates, the action being brought by a carrier against a shipper for an underpayment, there is a cogent statement by the Circuit Court of Appeals, Ninth Circuit, of the principles governing cases of this kind. The defendant was in the business of buying, selling, shipping and exporting wheat, and the complaint alleged that at all times it had a substantial number of outstanding contracts for sales to California and foreign destinations from Oregon, its place of business. Wheat was shipped from the interior of Oregon to a dock at Portland, owned by a subsidiary of defendant, and there trans-shipped by boat. The District Court had sustained a

demurrer to the complaint and its action was affirmed in the Circuit Court. The important cases in this field were collected and cited by the opinion, which summarized its conclusion as follows:

> "Under the decisions, it is clear that two elements are indispensable to constitute an interstate or foreign shipment:
>
> "(1) There must be a through and continuous movement from one state to another, or to a foreign country;
>
> "(2) There must be, *at the time the movement is started*, an intention that the shipment shall be interstate or foreign, and this intention must be carried out. In a word, there must be the intent and the event" (p. 914).

Atlantic Coast Line v. *Standard Oil Co.*, 275 U. S. 257 (1927), is practically the converse of the case at bar. There the interstate phase preceded the intrastate phase. The question was as to the applicability of interstate or intrastate rates for oil shipments from one place in Florida to another, when plaintiff oil company received oil from outside the state, and poured it into the tanks from which oil was being taken at the same time in practically a continuous flow, for shipment inside the state. The Court wrote:

> "It seems very clear to us on a broad view of the facts that the interstate or foreign commerce in all this oil ends upon its delivery to the plaintiff into the storage tanks . . . at the seaboard, and that from there its distribution . . . is all intrastate commerce. This distribution is the whole business of the plaintiff in Florida. There is no destination intended and arranged for with the ship carriers in Florida at any point beyond the deliveries from the vessels to the storage tanks or tank cars of the plaintiff. There is no designation of any particular oil for any particular place within Florida

beyond the storage receptacles or storage tank cars into which the oil is first delivered by the ships. The title to the oil in bulk passes to the plaintiff as it is thus delivered. When the oil reaches these storage places along the Florida seaboard, it *is within the control and ownership of the plaintiff* for use for its particular purposes in Florida. The plaintiff is free to distribute the oil according to the demands of its business. . . . (p. 267).

"There is nothing to indicate that the destination of the oil is arranged for or fixed in the minds of the sellers beyond the primary seaboard storages of the plaintiff company, at Tampa, Port Tampa, Jacksonville or the St. Johns River terminal. Everything that is done after the oil is deposited in the storage tanks at the Tampa destinations, or at the Jacksonville destinations is done in the distribution of the oil to serve the purposes of the plaintiff company that imported it. (p. 270)

"We have no hesitation in saying that the nature of the commerce in controversy in this case was intrastate." (p. 271)

In these cases the question of control by the shipper as to when a shipment is to end is important, as in the tax cases previously cited. The language of *Coe* v. *Errol* could be applied to any of the situations presented.

Private Law Cases.

The necessity for delimiting "interstate commerce" and "intrastate commerce" can arise in other situations. In *McCluskey* v. *Marysville & N. R. Co.*, 243 U. S. 36 (1917), the case turned on whether or not an employee was engaged in interstate commerce under the Federal Employers' Liability Act (35 Stat. 65, 45 U. S. C. A. §51). The plaintiff was a brakeman on a logging railroad, owned by the shipper, and was injured. The logs were to be put in Puget Sound

and afterwards sold in interstate commerce. There had been no prior sale. It was held that plaintiff was in intrastate commerce, and could not recover. The decision was put squarely on the precedent of *Coe* v. *Errol, supra.*

In *New York Central Railroad* v. *Mohney,* 252 U. S. 152 (1920), a situation obtained which is most interesting and important in the solution of the problem as to the character and status of interstate and intrastate phases of transportation. No question of federal or state power was involved. The Court simply had to decide the validity of a release provision in an application for a pass by an employee of a railroad. He had an annual pass between certain points in Ohio and used it on the occasion in question from Toledo to Cleveland, en route to Pennsylvania to attend the funeral of his mother. Surely this was a single journey, if ever there was one. At Cleveland he was to pick up a trip pass on another railroad. If he was in interstate commerce en route to Cleveland, the federal law which upheld the release governed. If in intrastate commerce, the Ohio law which invalidated the release governed. The journey to Cleveland was held to be intrastate by this Court, which affirmed a judgment of the Ohio Court of Appeals for the plaintiff. That Court had held that the transportation involved was interstate in character, but the plaintiff prevailed on another ground. This Court specifically held the transportation intrastate, and disapproved ground upon which the Ohio court rested its decision.

* * * * * * *

No attempt has been made by the foregoing presentation to submit an exhaustive or an encyclopedic collection of the cases where courts have had to determine the question whether particular transportation is in interstate or in intrastate commerce. But these cases which have been

presented are, we believe, typical. Their usefulness is suggested by the approach to a somewhat similar problem taken by Circuit Judge Learned Hand, speaking for a three-judge District Court in *Baltimore & Ohio R. Co.* v. *United States*, 15 F. Supp. 674 (1936). The case arose as a "usual suit in equity to review the action of the Interstate Commerce Commission which directed the plaintiff railroads to establish through rates" in the circumstances of the case,—a shipment of goods from one state to another with periodic stops for processing.

> "It is common to call the question one of fact; and conventionally it may be so, just as negligence is called a question of fact. But strictly it is not; *we are after a standard*, and because the law does not furnish an express one, we ought not disguise what we do by a misleading mask, even though that is especially comforting, where as here the standard is elastic and the decision must in substance be a choice." (pp. 676-7)

After reviewing many of the pertinent decisions of this Court, Judge Hand stated and classified them in categories appropriate to the case at bar. This technique illustrates what must be done in every case when "we are after a standard" appropriate to the application of concepts of "interstate commerce" and "intrastate commerce" to traffic in any commodity, whether it be logs or electricity.

Applying the technique suggested by Judge Hand to the cases, certain conclusions may be drawn:

1. So long as Congress makes the test of regulation depend upon whether a shipment, or an activity, or a transportation, or a transmission, or a sale, is *in* interstate commerce, the words must be construed within the pattern of prior judicial decisions from other fields and involving other issues.

2. The phrase, "*in* interstate commerce," is the strictest test of jurisdiction available to Congress.

3. Where a particular transportation or transmission has several possible phases, intrastate preceding interstate, or interstate preceding intrastate, and it has been necessary to make a determination as to the proper distribution of interstate or intrastate characteristics, attributes and consequences, the courts have used various evidentiary factors to determine whether there was certainty of destination in the mind of the shipper at the beginning of the journey.

4. Resolution of the question of interstate or intrastate commerce may be aided by factual tests: time and place of passage of title, pause, delay, the use of agents, factors, commission men, the form of the bill of lading, the reduction, in the case of gas, of pressure at the point of transfer, etc. However, in order to determine whether there was certainty of destination in the mind of the shipper at the beginning of the journey, the courts have emphasized *intention of and control by the shipper* as to the destination of the product.

5. Since, as this Court held in *Utah Power & Light Co. v. Pfost*, 286 U. S. 165, 180 (1932), "however lacking it may be in body or substance, electrical energy, nevertheless, possesses many of the ordinary tokens of materiality", transmission of such energy would seem clearly to possess attributes of other types of transportation, namely, that there is a start, a period of transportation, and a receipt; and that such electrical energy is capable of transportation in successive phases in the same manner as other articles of commerce.

6. Congress, by deleting "production" from the words descriptive of the subject of regulation as they appeared

in the original draft of the Act (see *supra*, p. 5, and compare with present Section 201), clearly indicated its own view that generation and receipt were not to be treated as instantaneous.

7. The construction of the bus bar indicates that control of the disposition of the energy at any time, and therefore at all times, was in Public Service, the owner, possessor and operator of the bus bar; and that instead of being merely a conductor, actually the bus bar was the *transmitting* (in the sense of "across-sending") facility in the instant case.

8. Therefore under the meaning of the phrase "in interstate commerce", as used in Section 201 of the Act, and as universally construed by the courts in many cases in comparable fields of federal regulation, petitioner Jersey Central has no facilities used for the transmission of electrical energy "*in* interstate commerce," nor does it sell at wholesale in "interstate commerce"; but instead all its facilities, including the seven-eighths mile of wire in question, are engaged only in transmission of energy in intrastate commerce. Such intrastate commerce includes the transmission of energy to the Mechanic Street substation owned, possessed, controlled and operated by Public Service, in which its future course is determined without any interference or control by petitioner Jersey Central. A contrary interpretation of the Act would mean that Jersey Central's status as a "public utility" would be in the control of Public Service or, so far as Jersey Central might be aware, of some other consumer, whose actions Jersey Central would not control, and the method of whose operations might be unknown to it and unascertainable, except as a result of the exercise of governmental investigative powers.

9. By this analysis, as by all the others possible in the case, petitioner Jersey Central is not a "public utility" within the purview of the Act.

POINT II.

The Court below erred in failing to hold that subsection (a) of Section 201 of the Act excludes Federal Power Commission jurisdiction over Jersey Central.

(a) Under subsection (a) of Section 201 of the Act, Federal regulation under the Act does not extend to matters subject to regulation by the States.

Under subsection (e) of Section 201 of the Act the status of a person as a "public utility" is made to depend upon the jurisdiction of the Commission over facilities owned or operated by it. Subsection (b) of the same section enumerates the powers granted to the Commission and the facilities subject to its jurisdiction, and at the same time lists powers which the Commission is forbidden to exercise, and facilities over which the Commission has no jurisdiction. The jurisdiction of the Commission is further limited by the scope of the Act itself, as stated in subsection (a) of Section 201. That subsection provides that regulation under the entire Act (except for Part I, dealing with hydroelectric licensees) is to extend "only to those matters which are not subject to regulation by the States." With reference to this subsection, the Report of the House Committee on Interstate and Foreign Commerce said:

> "Subsection (a) contains a declaration of policy, states the necessity for Federal regulation, and *defines the scope of that regulation.*" (Report of House Committee on Interstate and Foreign Commerce, No. 1318, 74th Cong., 1st Sess., p. 26.)

Both subsection (a) and subsection (b) evidence the intention of Congress to limit the Commission's jurisdiction to companies engaged directly in the sale or transmission of electric energy in interstate commerce, and to leave undisturbed the regulatory powers lawfully exercised by the states. In other words, the purpose of the Act is to provide for federal regulation of "that part" [subsection (a)] of the business of electric companies which this Court, in *Public Utilities Commission* v. *Attleboro Steam & Electric Co.*, 273 U. S. 83 (1927), held not subject to regulation by the states.

It may be well to recount briefly the facts in the *Attleboro* case. Narragansett Electric Lighting Company, engaged chiefly in supplying electricity at retail in Providence, Rhode Island, sold electric energy to Attleboro Steam & Electric Company, a Massachusetts company, directly across the state border by means of a connecting transmission line. In fact, the energy was not metered until it reached Massachusetts. The Public Utilities Commission of Rhode Island attempted to fix the rate which the Massachusetts company should pay the Rhode Island company for energy purchased over this line. This Court held, as the parties conceded, that the sale of electric energy was a transaction "*in* interstate commerce", and that the question of regulating the wholesale rate for such energy was national rather than local, and therefore not subject to regulation by Rhode Island, even in the absence of any attempt by Congress to occupy the field.

The intention of Congress, evidenced in many places in the legislative history of the Act (*supra*, pp. 44, 45, 53, 54), to restrict federal regulation to filling the "gap" brought about by the *Attleboro* case, resulted directly in the language of subsections (a) and (b) of Section 201.

The importance of subsection (a), as indicating the intention of Congress, is made clear by the recent decision of this Court in *United States* v. *N. E. Rosenblum Truck Lines, Inc.*, 315 U. S. 50 (1942). In that case a motor carrier applied for a certificate or permit to continue operation under the so-called "grandfather" provisions of Sections 206(a) and 209(a) of the Motor Carrier Act of 1935 (49 Stat. 551, 552, 49 U. S. C. A. §§306, 309). The applicant had been in the business of hauling for common carriers, rather than private shippers, prior to the critical date fixed by the Act. The following language from the opinion of Mr. Justice Murphy indicates the question involved and the disposition thereof by the Court:

> "The question here, as in any problem of statutory construction, is the intention of the enacting body. Congress has set that forth for us broadly in the declaration of policy—in essence it is the regulation of transportation by motor carriers in the public interest so as to achieve adequate, efficient and economical service. (p. 53)
>
> * * * * * * *
>
> "Appellees' contention that their activities on the critical date fall within the literal language of the definition of 'contract carrier' in force on the date of the order and that they are therefore entitled to contract carrier 'grandfather' rights is without merit. A holding that the activities of appellees prior to February 1936 were those of contract carriers would not accord with the intent of Congress. *Where the plain meaning of words used in a statute produces an unreasonable result, 'plainly at variance with the policy of the legislation as a whole,' we may follow the purpose of the statute rather than the literal words.*" (p. 55)

The italicized portion of the opinion makes clear the basic error committed by the Court below in applying "literally"

(R. 1133) the provisions of subsection (c) of Section 201, even though such construction resulted in conferring jurisdiction on the Federal Power Commission over a company whose facilities and operations are subject to state regulation, and over a specific transaction not only subject to regulation by the State of New Jersey, but approved by the duly authorized Board of Public Utility Commissioners of that State. A result more directly in conflict with the intention of Congress, as shown by subsection (a), can hardly be imagined.

As a matter of fact, the Federal Power Commission itself has relied on subsection (a) of Section 201 in construing another subsection of Section 201, namely, subsection (f), which excludes from the provisions of the Act the United States, any of the states or political subdivisions thereof. In asserting jurisdiction over the sale in interstate commerce of electric energy at wholesale to municipalities, in spite of the provisions of subsection (f), the Commission said (*Matter of Otter Tail Power Company*, 33 P. U. R. (N. S.) 257 (1940)):

> "The Federal Power Act of 1935 had its genesis in a desire to implement state regulation by placing for the first time under the jurisdiction of a Federal agency electric public utilities, interstate in character, considered beyond the sphere of State control. * * * *The congressional declaration of policy is indicative of the regulation contemplated. This declaration [is] contained in the first paragraph of Part II of the Act.* * *". (p. 260)

It is amazing, therefore, to find that the only construction or even recognition given by the Commission in the case at bar to subsection (a) was the statement in the Commission's brief below (p. 17) that subsection (a) is

"nothing but a preamble" and "neither adds to nor detracts from" the meaning of the statute. The refutation of this position will be found in *United States v. N. E. Rosenblum Truck Lines, Inc., supra,* in the language of the Act itself, and in the legislative history of the Act.

Where it was the intention of Congress to limit the effect of subsection (a) of Section 201, such limitation has been expressed in the Act itself. These limitations appear, for example, in connection with the Federal Power Commission's jurisdiction over the issuance of securities by a "public utility", and over accounting matters with respect to "public utilities". Thus, Section 204(f) of the Act (49 Stat. 851, 16 U. S. C. A. §824c(f)) provides as follows:

> "The provisions of this section shall not extend to a public utility organized and operating in a State under the laws of which its security issues are regulated by a State *commission.*"

At first glance, such provision might appear unnecessary in view of the provisions of subsection (a) that federal regulation shall not extend to matters subject to regulation by the states. However, the term "State commission", used in Section 204(f), is a statutory term, defined in Section 3(15) (49 Stat. 838, 16 U. S. C. A. §796 (15)) of the Act to mean the regulatory body of a state having jurisdiction to regulate "rates and charges for the sale of electric energy" to consumers within the state. Thus, in order to exclude Federal Power Commission jurisdiction over the issuance of securities by a "public utility", it is not enough that the issuance of such securities be subject to regulation generally by the states, through general corporation statutes, Blue Sky Laws, State Security Acts, and the like. Specific approval by a "State commission", as defined in the Act, is required.

Likewise, Section 301(a) provides that the Commission shall have jurisdiction to prescribe how a "public utility" shall keep its accounts, but there is specific proviso that "nothing in this Act shall relieve any public utility from keeping any accounts, memoranda, or records which such public utility may be required to keep by or under authority of the laws of any State." Section 301(a), therefore, is an instance where Congress has provided for *dual* jurisdiction by the state and by the federal government. In the absence of this provision it would have been possible to construe the original draft of the Act (H. R. 5423, 74th Cong. 1st Sess.) to mean that exclusive jurisdiction over accounting matters was intended to be vested in the Federal Power Commission, rather than the states. Mr. John E. Benton, General Solicitor to the National Association of Railroad and Utilities Commissioners, proposed, on behalf of the Association, that the proviso quoted above from present Section 301 be inserted. He said:

> "We also ask to have section 301 amended; as it stands that would forbid public utilities to keep any accounts except those prescribed by the Federal Commission. We seek to have that modified so that it will not prevent them from keeping such accounts as the State commissions may require, for State purposes" (House Hearings, p. 1689).

It is therefore evident that subsection (a) of Section 201 means precisely what it says, subject to such exceptions as Congress chose to make in connection with the issuance of securities by a "public utility" and the keeping of accounts by a "public utility". In all other respects, the jurisdiction of the Commission is limited to such matters as are beyond the power of the states to regulate.

(b) The business of Jersey Central, its facilities and their operation, are completely subject to regulation by the State of New Jersey.

The record in this case contains undisputed evidence that Jersey Central is a corporation chartered by the State of New Jersey, and that it owns, operates, manages and controls within that state electric light, heat and power plants and equipment for public use (R. 290). At the hearing before the Commission, counsel for Jersey Central offered by reference the statute of New Jersey defining the jurisdiction of the New Jersey Board of Public Utility Commissioners, and the examiner stated that notice would be taken of the statute of the state (R. 290-1). Excerpts from the New Jersey statute, dealing with regulation of public utilities in that state, have been reprinted separately as Appendix A to this brief. The New Jersey statute provides (N. J. S. A. 48:2-13) that the Board shall have general supervision and regulation of and jurisdiction and control over such companies as Jersey Central, in the following language:

> "The board shall have general supervision and regulation of and jurisdiction and control over all public utilities as hereinafter in this section defined and their property, property rights, equipment, facilities and franchises so far as may be necessary for the purpose of carrying out the provisions of this title." (N. J. S. A. 48:2-13).

The provisions of the statute include the power to fix rates, to require the filing of rate schedules, to suspend proposed increased rates (N. J. S. A. 48:2-21) and to enter into compacts on behalf of the State of New Jersey with other states for the joint regulation and control of rates for electricity transmitted between States (N. J. S. A. 48:2-22). The Board or the members thereof whenever authorized by Act

of Congress may exercise any power or authority over *interstate* commerce (N. J. S. A. 48:2-15). Some of the other powers given to the Board include the power to compel any utility to furnish safe, adequate and proper service (N. J. S. A. 48:2-23; and see *id.* 48:3-3), to make reasonable inspection of its metering facilities (N. J. S. A. 48:2-20), and to require every public utility to keep its books and accounts according to a uniform system prescribed by the Board (N. J. S. A. 48:2-16).

The Board has jurisdiction over the sale, lease, mortgage or other disposition of the facilities of a public utility (N. J. S. A. 48:3-7), and no public utility may transfer upon its books any share of its capital stock to any other public utility unless authorized to do so by the Board (N. J. S. A. 48:3-10). As stated previously, *the Board approved the very transfer of stock which gave rise to this case* (R. 5-8).

Without the approval of the Board as to legality, fairness and advisability, no contract for management or other services can be made between a New Jersey public utility and any company affiliated therewith by a 5% or more capital stock ownership (N. J. S. A. 48:3-7.1). A public utility is forbidden without authorization of the Board to lend its money to any one holding or controlling separately or in affiliation with another 5% or more of the capital stock of such utility (N. J. S. A. 48:3-7.2).

The above description of the New Jersey statute is not complete. It indicates plainly, however, that Jersey Central is and has been subject to the most comprehensive and pervasive state regulation, since prior to the enactment of the Federal Power Act.* The sale of energy by Jersey

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* A tabulation appearing in *State Commission Jurisdiction and Regulation of Electric and Gas Utilities*, Federal Power Commission (1941), in which the Commission col-

Central to Public Service from its South Amboy plant in New Jersey is subject to regulation by the Board, and the record indicates that Jersey Central reports such sales monthly in detail to the New Jersey Board (R. 291). If the New Jersey Board determined that the rendition of safe and adequate service to Jersey Central's customers in New Jersey required that the economy flow arrangement cease, there is no question of the power of the New Jersey Board under the provisions referred to above to bring about such cessation (N. J. S. A. 48:2-23 and 48:3-3).

Consequently, Jersey Central is not a "public utility" as defined in the Federal Power Act, not only since Jersey Central does not own or operate facilities for transmitting electric energy in interstate commerce, but in addition, the facilities of Jersey Central, including the seven-eighths of a mile of transmission line from its South Amboy plant and its sale of electric energy to Public Service, are fully subject to regulation by the New Jersey Board.

POINT III.

Approval by the New Jersey Board of Public Utility Commissioners of the acquisition by New Jersey Power of the stock of Jersey Central excludes jurisdiction over such transaction by the Federal Power Commission.

As stated previously, subsection (a) of Section 201 defines the scope of the regulation contemplated by the entire Act (except Part I thereof, not relevant here). Thus, it is stated that "Federal regulation" is necessary with

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lected data as to the scope of state regulation of privately owned electric utilities, indicates that, of the thirty different phases of regulation investigated, twenty-eight were listed as within the jurisdiction of the New Jersey Board of Public Utility Commissioners.

respect to matters relating to generation to the extent provided in Parts II and III, and with respect to that part of the business of transmitting and selling electricity for ultimate distribution to the public which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce. The "business" referred to obviously includes more than the mechanical operation of a specific piece of electrical apparatus or a transmission line. The term "business" includes the entire commercial enterprise necessary for the transmission and sale regulated by the Act.* Consequently, "Federal regulation" of the "business" referred to in subsection (a), includes regulation of the acquisition or disposition of physical assets (even non-utility assets) and the acquisition of securities of a "public utility" (Section 203(a)), the issuance of securities by a "public utility" (Section 204), the keeping of accounts and records by a "public utility" (Section 301), and the like.

It is this entire "Federal regulation" that is limited by the last clause in subsection (a), which provides that such regulation shall "extend only to those matters which are not subject to regulation by the States." Consequently, subsection (a) not only limits the scope of the definition of "public utility", as defined in the remaining subsections of Section 201, but also, subject to the exceptions referred to

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* The Commission itself has adopted this view in *Matter of The Hartford Electric Light Company*, Opinion No. 58, February 25, 1941 in which it is said:

> "These physical facilities are *only some, but by no means all, of the facilities* used in the sale of electric energy. The entire corporate organization of Hartford, its contracts, its books of account, its instrumentalities for billing and collecting, as well as its electric facilities, are used in the sale of electric energy in interstate commerce" (p. 14). (Emphasis not supplied.)

above (*supra*, pp. 73-74) afforded by Sections 204(f) and 301(a), limits the powers which the Commission may exercise with respect to persons which are concededly "public utilities". Where dual jurisdiction was deemed desirable (*e. g.*, in the matter of keeping accounts and records) it was provided for; in the case of security acquisitions no such provision was made.

Despite the complete preservation of state regulation in the Act, with its corresponding limitation on the jurisdiction of the Federal Power Commission, the substantive provisions of the Act were by no means futile. These provisions dealt, among other things, with interconnection of facilities (Section 202), the disposition of property, consolidations and purchases of securities (Section 203), the issuance of securities (Section 204), and rates and charges (Section 205). Under these and other provisions the Federal Power Commission received a substantial grant of authority, even though the existence of state regulation with respect to a given matter deprived it, *pro tanto*, of jurisdiction which it might otherwise have had over a "public utility". This follows from two important facts: first, with reference to interconnections, rates and rendition of service there were many instances in which, by reason of the doctrine enunciated in the *Attleboro* case, the states were unable to regulate at all; and, second, in many states there was no regulation provided in respect of the matters referred to above. In January, 1941, the Federal Power Commission published a study, based upon data supplied by the state commissions, entitled "State Commission Jurisdiction and Regulation of Electric and Gas Utilities". This study summarized, among other things, the extent of state commission regulation of privately owned electric utilities (including regulation in the District of Columbia). The results of the Federal Power Commis-

sion study with reference to the regulation by the state commissions of the matters indicated above, is shown below:*

	Regulation	No Regulation	No Answer
Rates (residential, commercial, industrial)	41	8	
Rates (other utilities for resale)	41	8	
Rates (others for transmission service only)	35	12	2
Interconnections	34	14	1
Lease or Sale of Facilities	35	13	1
Mergers and Consolidations	34	14	1
Issuance of Securities	31	17	1
Purchases of Voting Stock by other Electric Utilities	28	20	1

In the case at bar, it is clear that the transfer of Jersey Central stock to New Jersey Power was subject to regulation by the State of New Jersey (N. J. S. A. 48:3-7 and 48:3-10). The New Jersey Board of Public Utility Commissioners in a formal proceeding approved such transfer (R. 5-8), and the Court below held that the sale of Jersey Central stock to New Jersey Power "properly was subject to regulation by the State of New Jersey" (R. 1134). In fact, the Court below agreed with petitioners' contention that subsection (a) of Section 201 limits the scope of the Act in the manner here contended, since the Court made the following statement:

> "As we have indicated it was the intention of Congress in passing Part II of the Act to extend

* These data are taken from *State Commission Jurisdiction and Regulation of Electric and Gas Utilities*, Federal Power Commission (1941), Tables IA and IB, pp. 16-19, inclusive.

federal regulation to the transmission of electricity in interstate commerce. *But by Section 201(a) Congress made it plain that such regulation was to extend only to those matters which were not subject to regulation by the states.* The petitioners point out that the transfer of stock with which we are concerned was approved by the Board of Public Utility Commissioners of New Jersey in the exercise of the authority granted to the Commissioners by the law of New Jersey" (R. 1134).

The inevitable conclusion from this construction of the Act would seem to be: Therefore, "Federal regulation" by the Commission does not extend to the stock transfer which gave rise to this proceeding. The Court below, however, reached a contrary conclusion and affirmed the order of the Commission which held that New Jersey Power violated Section 203(a) of the Act in acquiring the stock without authorization of the Commission. In other words, *both* the Federal Power Commission and the Board of Public Utility Commissioners of New Jersey were held to have jurisdiction over the transaction in question. The Court's justification of this extraordinary conclusion is contained in the following extract from its opinion:

> "The sale of the Jersey Central stock to Jersey Power properly was subject to regulation by the State of New Jersey because Jersey Central was engaged in intrastate commerce in that it supplied electricity to local consumers within the State of New Jersey. The sale was subject to the jurisdiction of the Federal Power Commission because Jersey Central is a public utility within the meaning of Section 201(e). We must consider the point of dual control but only insofar as it may be applicable to the appeals at bar, in view of the provisions of Section 201(a) restricting federal regulation, and the legislative history of Part II of the Act.

> The authority of the Board of Public Utility Commissioners of New Jersey must be deemed to be paramount in those matters which may affect the intrastate transmission of electricity and the authority of the Federal Power Commission must be deemed to be governing as to those matters which may affect the transmission of electric energy in interstate commerce. We cannot presume a conflict between the two regulatory bodies upon the issue of whether or not Jersey Power should have bought the stock of Jersey Central. No conflict is shown upon the present record and none may ever come into existence" (R. 1134).

It is respectfully submitted that this reasoning is fallacious. There is nothing in subsection (a) or any other section of the Act which conditions the operation of the limiting clause in subsection (a) on the existence of a conflict between state and federal commissions. The whole point of subsection (a), and the very reason why it was inserted in the Act, is *to prevent any occasion for such conflict from arising*, by providing that the "Federal regulation" undertaken in the Act simply does not extend to matters which are subject to regulation by the states.

An extract from the debate on the floor of the Senate shows how thoroughly it was understood that existing regulation by the States was not to be superseded by the Act.

> "Mr. Borah: I understand that it is not the intention of the framers and proponents of the measure to deal with intrastate matters at all.
>
> "Mr. Wheeler: That is correct.
>
> "Mr. Borah: If the general language used could be construed as dealing with intrastate matters, nevertheless the intention is to confine the operation of the bill to interstate matters?
>
> "Mr. Wheeler: That is entirely correct" (Cong. Record, Vol. 79, Part 8, p. 8431).

"Mr. Wheeler: • • • We preserved the state regulation completely in the bill, but in title II we made the positive statement that the policy should be not to interfere with state regulation, but to assist and help state regulation" (Cong. Record, Vol. 79, Part 8, p. 8775). (Senator Wheeler was Chairman of the Senate Committee on Interstate Commerce.)

The Court below seems to have taken the view that the exercise of jurisdiction by the Federal Power Commission over a stock acquisition already approved by the New Jersey Board would not "interfere with" state regulation unless and until it was shown affirmatively that the Federal Power Commission had refused to approve the transaction. There is nothing in the Act which could form the basis for such a position. Either New Jersey Power was required under Section 203(a) of the Act to secure authorization from the Federal Power Commission to acquire the stock in question, or such authorization was not required. It would be an anomaly to make the test of the Federal Power Commission's jurisdiction depend on whether its decision on the merits of an application made to it accorded with or was at variance with the decision of the New Jersey Board.

The Court below pointed out that it "must consider the point of dual control . . . in view of the provisions of Section 201(a)", but then stated, apparently as indicative of its "consideration", that "The authority of the Board of Public Utility Commissioners of New Jersey must be deemed to be paramount in those matters which may *affect* the intrastate transmission of electricity and the authority of the Federal Power Commission must be deemed to be governing as to those matters which may *affect* the transmission of electric energy in interstate commerce" (R. 1134). Petitioners submit that the Court's reasoning constitutes a *non sequitur*. The Federal Power Act does not

require a showing that the acquisition of Jersey Central stock was related to intrastate or interstate transmission, and the Federal Power Commission did not at any time contend that such a showing was necessary or had any relevance. Section 201(a) is the provision in the Act which *restricts* Federal regulation to matters not subject to regulation by the States. How can it possibly follow—or be of any relevance—that the authority of the New Jersey Board is paramount as to intrastate matters, and that the authority of the Federal Power Commission is governing as to interstate matters? The point of subsection (a) is that even though the Federal Power Commission *might* have been given exclusive or dual control, with the state commissions, Congress *in fact* determined that the regulatory powers of the states should continue to be exclusive, with the exceptions, not relevant here, already alluded to.

The solution of the problem of "dual control" does not require reference to the extraneous matters and issues relied on by the Court. It is simply this:

> (a) Subsection (a) excludes "Federal regulation" over matters subject to regulation by the States.
>
> (b) The transfer of Jersey Central stock to New Jersey Power was subject to regulation by the State of New Jersey.
>
> (c) Hence, no authorization from the Federal Power Commission was required and the judgment of the Court below, as well as the determination by the Commission, should be reversed and set aside.

Conclusion.

Jersey Central is not a "public utility" and is not subject to regulation by the Commission, in view of the terms of the Act, its legislative history, a comparison of the

Act with other statutes, and the relevant decisions of this Court. Moreover, even if Jersey Central were a "public utility", no authorization of the Commission was required for the stock acquisition in question, since such acquisition was subject to regulation by and was approved by the appropriate regulatory body of the State of New Jersey. The judgments of the Court below should be reversed and set aside.

Respectfully submitted,

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IN THE

Supreme Court of the United States

OCTOBER TERM—1942.

No. 299.

JERSEY CENTRAL POWER & LIGHT COMPANY,
Petitioner,

v.

FEDERAL POWER COMMISSION,
Respondent.

No. 329.

NEW JERSEY POWER & LIGHT COMPANY,
Petitioner,

v.

FEDERAL POWER COMMISSION,
Respondent.

APPENDIX A TO BRIEF FOR PETITIONERS.

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APPENDIX A TO BRIEF FOR PETITIONERS.

In accordance with Rule 27 of the Rules of Practice of this Court, petitioners have reprinted separately herein, as Appendix "A" to petitioners' brief, quotations from the relevant parts of the statutes of New Jersey deemed to have an important bearing on this case.

EXCERPT FROM REVISED STATUTES OF NEW JERSEY 1937.

TITLE 48. PUBLIC UTILITIES.

CHAPTER 1. ADDITIONAL POWERS OF CORPORATIONS.

48:1-1. *Application of provisions of general corporation law.* Every corporation organized under any of the provisions of this title, in addition to the powers conferred upon it by the provisions of this title, shall have the general powers and privileges conferred by Title 14, Corporations, General, and shall be governed by the provisions and be subject to the restrictions and liabilities in said Title 14 contained, so far as the same are appropriate to and not inconsistent with the provisions of the act under which any such corporation is organized or created and are convenient or necessary to the objects set forth in its certificate of incorporation.

CHAPTER 2. BOARD OF PUBLIC UTILITY COMMISSIONERS.

Article 1. Constitution of Board.

48:2-1. *Appointment; terms; vacancies.* The board of public utility commissioners, hereinafter in this chapter designated as the "board", created and established by the act entitled "An act concerning public utilities; to create a board of public utility commissioners and to prescribe its duties and powers," approved April twenty-first, one thousand nine hundred and eleven (L. 1911, c. 195, p. 374), as amended and supplemented, is continued.

The board shall consist of three citizens of this state not under thirty years of age. At the expiration of the term of a member of the board, the governor shall, by and with the advice and consent of the senate, appoint a successor for a term of six years. The terms of office of the members of the board shall continue until their successors are appointed and qualified. No person shall act as a member of the

board until his appointment has been confirmed by the senate. Not more than two of the members of the board shall be members of the same political party. All vacancies, except through the expiration of term, shall be filled for the unexpired term only.

48:2-2. *Organization; seal; employees; compensation.* The board shall organize annually by the election of a president and shall have a common seal. It shall appoint a secretary, counsel and such other employees as it may deem necessary and fix their duties and terms of service. It shall fix the compensation of all officers and employees, subject to the provisions of Title 11, Civil Service, except where otherwise provided by statute.

48:2-3. *Office; meetings.* The board shall have an office in the state house and in such other place or places as it may designate, and shall be provided with all necessary furniture, stationery, maps, supplies and office appliances. It shall meet at such times and places within this state as it may provide.

48:2-4. *Duties of secretary.* The secretary shall keep full and correct minutes of all the transactions and proceedings of the board and perform the other duties required of him. He shall be the official reporter of the proceedings of the board.

48:2-5. *Salary.* The members of the board shall each receive an annual compensation of twelve thousand dollars, to be paid by the treasurer of the state.

48:2-6. *Traveling expenses.* The members and secretary and other employees of the board shall be entitled to receive from the state their necessary traveling expenses while traveling on the business of the board. Such traveling expenses shall be paid on proper voucher therefor approved by the president of the board.

48:2-7. *Purchase of necessary materials.* The board shall purchase such materials, apparatus and measuring instruments as it may deem necessary.

48:2-8. *Connection with public utilities or governmental office, prohibited; exceptions.* No member or employee of the board shall have any official or professional relation or connection with, or hold any stock or securities in, any public utility as herein defined, operating within this state, or hold any other office of profit or trust under the government of this state or of the United States; but the inhibition herein contained shall not apply to anyone holding any municipal office under the government of this state, or the office of commissioner appointed by the chancellor under the provisions of an act entitled "An act to provide for the revision and consolidation of the public statutes of this state," approved March twelfth, one thousand nine hundred and twenty-five (L. 1925, c. 73, p. 244).

48:2-9. *Reports of findings and decisions; publication.* The board shall furnish its secretary such of its findings and decisions as, in its judgment, may be of general public interest. The secretary shall compile the same for the purpose of publication in a series of volumes to be designated "Reports of the board of public utility commissioners of the state of New Jersey", which shall be published in such form and manner as may be best adapted for public information and use. Such publications shall be competent evidence of the reports and decisions of the commission therein contained without any further proof or authentication thereof. The contents of the reports shall not be under the supervision or control of the official state editor.

48:2-10. *Certified copies of records as evidence.* Copies of all official documents and orders filed or deposited in the office of the board, certified by a member thereof or the secretary to be true copies, under the official seal of the board, shall be evidence in like manner as the originals in all courts of this state. The board may charge and collect for such copies ten cents for each folio. The fees so collected shall be paid into the treasury of the state.

48:2-11. *Annual report.* The board shall report annually on or before the first of January, to the governor,

making such recommendations as it may deem proper. The report shall be laid before the next succeeding legislature.

48:2-12. *Rules.* The board may make all needful rules for its government and other proceedings.

Article 2. Jurisdiction, Powers and Duties.

A. Jurisdiction.

48:2-13. *General jurisdiction; "public utility" defined.* The board shall have general supervision and regulation of and jurisdiction and control over all public utilities as hereinafter in this section defined and their property, property rights, equipment, facilities and franchises so far as may be necessary for the purpose of carrying out the provisions of this title.

The term "public utility" shall include every individual, copartnership, association, corporation or joint stock company, their lessees, trustees or receivers appointed by any court whatsoever, that now or hereafter may own, operate, manage or control within this state any steam railroad, street railway, traction railway, autobus, canal, express, subway, pipe line, gas, electric light, heat, power, water, oil, sewer, telephone or telegraph system, plant or equipment for public use, under privileges granted or hereafter to be granted by this state or by any political subdivision thereof.

Nothing contained in this title shall extend the powers of the board to include any supervision and regulation of, or jurisdiction and control over any taxicab, hotel bus, or bus employed solely for transporting school children and teachers, or any autobus with a carrying capacity of not more than six passengers now or hereafter operated under municipal consent upon a route established wholly within the limits of a single municipality, which route does not in whole or in part parallel upon the same street the line of any street railway or traction railway or any other autobus route.

48:2-14. *Approval of grants by municipalities of franchises and privileges to public utilities.* No privilege or

franchise granted after May first, one thousand nine hundred and eleven, to any public utility by a political subdivision of this state shall be valid until approved by the board. Such approval shall be given when, after hearing, the board determines that the privilege or franchise is necessary and proper for the public convenience and properly conserves the public interests. In granting its approval the board may impose such conditions as to construction, equipment, maintenance, service or operation as the public convenience and interests may reasonably require.

Nothing herein shall require the approval by the board of any consent of a municipality or board of boulevard commissioners for the operation of any autobus in effect March twenty-fourth, one thousand nine hundred and twenty-six, which did not then require such approval to be valid.

48:2-15. *Authority over interstate commerce.* The board or the members thereof, whenever authorized by an act of congress to exercise any power or authority over interstate commerce, shall have full power and authority to administer the provisions of such act within this state, and in cases authorized under such act, in co-operation with boards of other states and the interstate commerce commission.

B. Powers.

48:2-16. *Supervisory and regulatory powers in general.* The board may, after hearing, upon notice, by order in writing, require every public utility:

Compliance with laws and ordinances. a. To comply with the laws of the state and any municipal ordinance relating thereto, and to conform to the duties imposed upon it thereby or by the provisions of its own charter, whether obtained under general or special law of this state.

System of accounts. b. To keep its books, records and accounts so as to afford an intelligent understanding of the conduct of its business and to that end require every public utility of the same class to adopt a uniform system of ac-

counting. Such system shall conform, in so far as in the judgment of the board is practicable, to any system adopted or approved by the interstate commerce commission.

Annual report. c. To furnish annually a detailed report of finances and operations in such form and containing such matters as the board may from time to time by order prescribe.

Notice of accidents. d. To give such notice to the board as the board may by rule require, of any and all accidents which may occur within the state upon the property of any public utility or directly or indirectly arising from or connected with its maintenance or operation, and to investigate any such accident and to make such order or recommendation with respect thereto as in its judgment may be just and reasonable.

48:2-17. *Filing list of officials and their duties with board.* The board may require every public utility to file with the board a statement in writing, verified by the oaths of the president and secretary of the public utility, setting forth the name, title of office or position and post-office address, and the authority, power and duties of every officer, member of the board of directors, trustees, executive committee, superintendent, chief or head of construction and operation, or department, division or line of construction and operation thereof, in such form as to disclose the source and origin of each administrative act, rule, decision, order or other action of the corporation.

Every public utility shall, within ten days after any change is made in the title of, or authority, powers or duties appertaining to any such office or position or the person holding the same, file with the board a like statement, verified in like manner, setting forth such change.

48:2-18. *Depreciation accounts; rates of depreciation; depreciation fund.* The board may, after hearing, upon notice, by order in writing, require every public utility to carry, whenever in the judgment of the board it may reasonably be required for the protection of stockholders,

bondholders or creditors, a proper and adequate depreciation account in accordance with such rules, regulations and forms of account as the board may prescribe.

The board shall from time to time ascertain and determine, and by order in writing after hearing fix, proper and adequate rates of depreciation of the property of each public utility in accordance with such regulations or classifications. Such rates shall be sufficient to provide the amounts required, over and above the expense of maintenance, to keep the property in a state of efficiency corresponding to the progress of the industry.

Each public utility shall conform its depreciation accounts to the rate so ascertained, determined and fixed and shall set aside the moneys so provided for out of earnings and carry the same in a depreciation fund. The income from investments of moneys in the fund shall likewise be carried in such fund. This fund shall not be expended otherwise than for depreciation, improvements, new construction, extensions or additions to the property of the public utility.

48:2-19. *Investigations; valuation of property of public utility.* The board may:

a. Investigate upon its own initiative or upon complaint in writing any matter concerning any public utility;

b. Appraise and value the property of any public utility whenever in the judgment of the board it shall be necessary so to do for the purpose of carrying out any of the provisions of this chapter. In making such valuation the board may have access to and use any books, documents or records in the possession of any department or board of the state or any political subdivision thereof.

48:2-20. *Testing appliances; access to premises; fees.* The board may:

a. Provide for the examination and test of any and all appliances used for the measuring of any product or service of a public utility;

b. By its agents, experts or examiners, enter upon any premises occupied by a public utility for the purpose of

making the examinations and tests provided for in this chapter and to set up and use on such premises any apparatus and appliances necessary therefor;

c. Fix the fees to be paid by any consumer or user of any product or service of a public utility who may apply to the board for such examination or test to be made. Any consumer or user may have any such appliance tested upon the payment of the fees fixed by the board. If the appliance be found defective or incorrect to the disadvantage of the consumer or user such fees shall be repaid to him by the public utility.

48:2-21. *Rates.*

Schedule of rates. a. The board may require every public utility to file with it complete schedules of every classification employed and of every individual or joint rate, toll, fare or charge made, charged or exacted by it for any product supplied or service rendered within this state, as specified in the requirement.

Fix rates. b. The board may after hearing, upon notice, by order in writing:

1. Fix just and reasonable individual rates, joint rates, tolls, charges or schedules thereof, as well as commutation, mileage and other special rates which shall be imposed, observed and followed thereafter by any public utility, whenever the board shall determine any existing rate, toll, charge or schedule thereof, commutation, mileage or other special rate to be unjust, unreasonable, insufficient or unjustly discriminatory or preferential. In every such proceeding the board shall complete and close the hearing and enter its final order within six months afer the filing of the order of the board initiating such proceeding, when such proceeding is on the board's own motion; and within six months after issue is joined through the filing of an answer to a complaint, when such proceeding is initiated by complaint.

2. Fix just and reasonable joint rates, which shall be charged, enforced, collected and observed by railroads and

street railroads in the carrying of freight. Whenever the railroads or street railroads involved fail to agree upon the apportionment or division of a joint rate so established, the board may issue a supplemental order declaring the apportionment or division of the joint rate.

Demurrage rates. c. The board may fix the rates or charges to be made by any corporation subject to the provisions of this chapter for the detention of a railroad car containing property transported by railroad to any point in this state or for the use of railroad tracks occupied by such car, commonly called demurrage or car service, or for both such detention and use. Such rates and charges shall conform as nearly as possible to the rates and charges for demurrage or car service prescribed and fixed by the interstate commerce commission for similar service.

Increases in rates; hearings. d. When any public utility shall increase any existing individual rates, joint rates, tolls, charges or schedules thereof, as well as commutation, mileage and other special rates, or change or alter any existing classification, the board, either upon written complaint or upon its own initiative, shall have power after hearing, upon notice, by order in writing to determine whether the increase, change or alteration is just and reasonable. The burden of proof to show that the increase, change or alteration is just and reasonable shall be upon the public utility making the same. The board, pending such hearing and determination, may order the suspension of the increase, change or alteration until the board shall have approved the same, not exceeding three months. If the hearing shall not have been concluded within such three months the board may during such hearing and determination order a further suspension for an additional period not exceeding three months. The board shall approve the increase, change or alteration upon being satisfied that the same is just and reasonable.

48:2-21.1. *Adjustment of rates during pendency of hearing.* The board may, during the pendency of any hearing

instituted by it, on its own initiative or on complaint, in which the approval or fixing of just and reasonable individual rates, joint rates, tolls, charges or schedules thereof, as well as commutation, mileage or other special rates is in issue, or at any other time, negotiate and agree with any public utility for an adjustment of the individual rates, joint rates, tolls, charges or schedules thereof, as well as commutation, mileage or other special rates for any product or service supplied or rendered by such public utility. Such adjustment may be for, or without, a specified limit of time. In no event shall any such adjustment be regarded as contractual. Such adjustment shall at all times be subject to change through the proceedings provided for by this chapter, or through negotiation and agreement under this section. The board as a part of any such negotiation and adjustment shall provide for the continuance, suspension or other disposition of any hearing of the character aforesaid then pending.

48:2-22. *Compacts for joint regulation and control of gas and electricity rates.* The board may enter into compacts in the name of the state of New Jersey with the states of New York, Vermont, Massachusetts, Connecticut and Pennsylvania, or any one or more of such states, or any other state, through such body in each such state or states as may be designated by law to act, for the purpose of establishing joint regulation and control of rates for electricity and gas transmitted between such states.

The board shall report for ratification the terms of any such compact to the legislature of this state at a regular session thereof after the compact has been agreed upon, and shall recommend such legislation, both state and federal, as may be necessary to be enacted to render the compact effective.

48:2-23. *Safe and adequate service.* The board may, after hearing, upon notice, by order in writing, require any public utility to furnish safe, adequate and proper service and to maintain its property and equipment in such condition as to enable it to do so.

48:2-24. *Resumption of service.* If any public utility shall discontinue service and the board after hearing upon notice shall find and determine that service should be resumed, the board may order that service be resumed forthwith or on such date as it may fix.

48:2-25. *Standards, classifications and measurements of service.* The board may, after hearing, by order in writing:

a. Fix just and reasonable standards, classifications, regulations, practices, measurements or service to be furnished, imposed, observed, and followed thereafter by any public utility;

b. Fix adequate and serviceable standards for the measurement of quantity, quality, pressure, initial voltage or other condition pertaining to the supply of the product or service rendered by a public utility, and prescribe reasonable regulations for examination and test of the product or service and for the measurement thereof;

c. Establish reasonable rules, regulations, specifications and standards, to secure the accuracy of all meters and appliances for measurements.

48:2-26. *Maintenance of junction points and connections.* The board may, after hearing, upon notice, by order in writing:

a. Direct any railroad, street railway or traction company to establish and maintain at any junction or point of connection or intersection with any other line of said road, or with any line of any other railroad, street railway, or traction company, such just and reasonable connections as shall be necessary to promote the convenience of passengers or shippers of property;

b. Direct any railroad, street railway or traction company engaged in carrying merchandise to construct, maintain and operate, upon reasonable terms, a switch connection with any private sidetrack which may be constructed by any shipper to connect with the railroad or street rail-

way where, in the judgment of the board, such connection is reasonable and practicable and can be put in with safety and will furnish sufficient business to justify the construction and maintenance of the same.

48:2-27. *Extension of facilities.* The board may, after hearing, upon notice, by order in writing, require any public utility to establish, construct, maintain and operate any reasonable extension of its existing facilities where, in the judgment of the board, the extension is reasonable and practicable and will furnish sufficient business to justify the construction and maintenance of the same and when the financial condition of the public utility reasonably warrants the original expenditure required in making and operating the extension.

48:2-28. *New grade crossings; approval of board.* No highway shall be constructed across the tracks of any railroad company at grade, nor shall any track over which locomotives, railroad or street railway cars are to pass be laid across any highway, so as to make a new crossing at grade, nor shall the tracks of any railroad, street railway or traction company be laid across the tracks of any other such company without first obtaining permission from the board.

This section shall not apply to the replacement of lawfully existing tracks.

48:2-29. *Protection at grade crossings.* Whenever it shall appear to the board that a public highway and a railroad or a street railway, or that a railroad and a street railway, cross one another at the same level and that conditions at such grade crossing make it necessary that gates be erected or that some other reasonable provision for the protection of the travelling public be adopted, the board may order the railroad or street railway company or both, to install such protective device or adopt such other reasonable provision for the protection of the travelling public at the crossing as in the discretion of the board shall be necessary.

48:2-29.1. *Prohibit payment of dividends except from surplus or net profits.* The board may, after hearing upon notice, by order in writing, prohibit any public utility from paying dividends except from surplus or net profits as permitted by the law of this state and require any public utility to comply with the law of this state with respect to the payments of dividends.

48:2-29.2. *Prohibit or limit payment of dividends by utility failing to comply with board's order.* The board may, after hearing, upon notice, by order in writing, prohibit or limit the payment of dividends by a public utility if the board, after such hearing, finds and determines that such public utility fails to comply with any order of the board ascertaining, determining and fixing reasonably adequate working capital or rates of depreciation or with any order requiring such public utility by adequate maintenance to keep its property and equipment in condition to furnish safe, adequate, and proper service. Every order so made by the board shall continue in effect until the board by its certificate in writing determines that the conditions on the existence of which the making of the order was based have been corrected.

48:2-29.3. *Discontinuance of surcharge.* Whenever any public utility shall heretofore have been or shall hereafter be authorized by the board to collect a surcharge to raise a definite amount of money or for a specified purpose and the board, after hearing upon notice, shall determine that the amount authorized has been collected, or that the specified purpose has been accomplished, the board is hereby empowered to require by an order in writing the immediate discontinuance of such surcharge.

48:2-29.4. *Repayment of excess surcharge:* Whenever after hearing upon notice the board shall determine that any public utility has collected by means of a surcharge an amount of money exceeding the authorized amount or has continued to collect a surcharge after the specified purpose for which it was authorized has been accomplished,

the board may require such public utility by an order in writing to repay the excess so collected to those from whom the same was collected.

48:2-29.5. *Regulating deposits by customers to secure payment for services; interest on deposits.* The board may adopt rules and regulations prescribing the terms and conditions under which public utilities may require the deposit of moneys to secure the payment by customers of such sums as may become due for services to be rendered and the conditions under which repayment of moneys deposited for such purpose shall be made.

The board may adopt rules and regulations prescribing the rate of interest that shall be credited or paid on moneys so deposited.

C. Professional or Expert Service.

48:2-30. *Requisition of sum required for payments for services; reservation.* When any contract is made by the board for professional or expert services for the purposes of carrying out any of the provisions of this chapter, the board shall make requisition on the state comptroller for the reservation of such sum as may be required to make payments for the services and doing the work agreed upon in the contract. The comptroller shall reserve for the purpose of making such payments, from the money appropriated by the legislature for the salaries and expenses of the board, the sum called for in the requisition.

48:2-31. *Balance of reserve; disposition.* If the work called for by the contract mentioned in section 48:2-30 of this title is not completed during the fiscal year in which the contract is made, the balance of the sum reserved by the comptroller on account of the contract shall remain to the credit of the board and shall be used for the purpose of making further payments until the work called for by the contract is completed. No such balance shall be retained nor shall any such contract be extended beyond the close of the fiscal year following the year in which the contract is made.

Article 3. Hearings and Investigations.

48:2-32. *Board rules to govern; single member may sit.* All hearings and investigations before the board or any member thereof shall be governed by rules adopted by the board. Neither the board nor such member shall be bound by the technical rules of evidence. The members of the board may sit singly for the purpose of taking testimony in any proceeding.

48:2-32.1. *Examiners; scope of investigations; powers; compensation.* The board may designate in writing any member of the legal staff of the board or any department head who is an attorney at law of this state to sit as examiner for the purpose of taking testimony in any investigation of any accident which may occur within this state upon the property of any public utility, or directly or indirectly arising from or connected with its maintenance or operation; or in any investigation or hearing upon the application of a railroad company to abandon any railroad station or to stop the sale of passenger tickets, or to cease to maintain an agent to receive and discharge freight at any station now or hereafter established in this state, at which passenger tickets are now or may hereafter be regularly sold, or at which such agent is now or may hereafter be maintained, or at any hearing upon application for the transfer of municipal consents for the operation of autobusses; or upon application by a public utility for approval of a proposed sale of property having a value not exceeding five thousand dollars or of a proposed mortgage or encumbrance of property not exceeding in amount five thousand dollars; or in any investigation or hearing relating to failure to file annual or other reports, or to conform the same to the rules and regulations of the board.

Such officer or employee so designated shall have the same powers as a member of the board sitting singly, including power to report to the board his recommendations as to the order or other disposition to be made.

The board shall adopt rules affording an opportunity to parties affected by any recommendation made by such

examiner to be heard before the board, either in oral argument or on written briefs in the board's discretion, on the question of adopting, rejecting or modifying the recommendations so made.

An officer or employee of the board so designated as examiner shall not be paid or receive, directly or indirectly, any additional compensation for such services.

48:2-33. *Witnesses; production of documents; oaths; subpoenas.* The board may compel the attendance of witnesses and the production of tariffs, contracts, papers, books, accounts and all other documents. Any member of the board may administer oaths to all witnesses who may be called before the board or any member thereof. Subpoenas issued by the board shall be signed by one of the members thereof and by the secretary, and may be served by any person of full age.

48:2-34. *Depositions.* The board may, in any investigation or hearing, by its order in writing, cause the deposition of witnesses residing within or without the state to be taken in such manner as it may by rule prescribe.

48:2-35. *Compelling witness to testify or produce documents; contempt.* If a person subpoenaed to attend before the board or a member thereof fails to obey the command of the subpoena without reasonable cause, or if a person in attendance before the board or a member thereof refuses without lawful cause to be examined or to answer a legal or pertinent question, or to produce a book or paper, when ordered so to do by the board or a member thereof, the board or the member may apply to the supreme court or any justice thereof, upon proof by affidavit of the facts, for an order returnable in not less than two nor more than ten days, directing such person to show cause before the court or justice why he should not comply with the subpoena or order of the board.

Upon the return of the order the court or justice before whom the matter shall come on for hearing shall examine under oath such person whose testimony may be relevant

and such person shall be given an opportunity to be heard, and if the court or justice shall determine that such person refused without legal excuse to comply with the subpoena or the order of the board, the court or justice may order such person to comply forthwith with the subpoena or order. Any failure to obey the order of the court or justice may be punished by the court or justice as a contempt of the supreme court.

48:2-36. *Self-incrimination; immunity from prosecution.* No person shall be excused from testifying or from producing any book, document or paper in any investigation or inquiry by or upon a hearing before the board or any member thereof when ordered so to do by the board or member, upon the ground that the testimony or documentary evidence required of him may tend to incriminate him or subject him to penalty or forfeiture, but no person shall be prosecuted, punished or subjected to any penalty or forfeiture on account of any matter or thing concerning which he shall, under oath, have testified or produced documentary evidence, except that he shall not be exempt from prosecution or punishment for any perjury committed by him in his testimony. Nothing herein shall give to any corporation immunity of any kind.

48:2-36.1. *Requiring utility to submit data relevant to inquiry or investigation by board.* The board may by order in writing require any public utility to compile from its accounts, books, records, documents, and papers and submit to the board any data, material and relevant to any inquiry, investigation or proceeding undertaken by or pending before such board. The data which the board is hereby empowered to require to be compiled may relate and extend to services rendered, business done, transactions had, and property located, within or without this state where such data is material and relevant to the inquiry, investigation or proceeding so undertaken by, or pending before the board.

48:2-37. *Corporations and persons owning or controlling public utility stock; compelling production of records*

and attendance of witnesses. The board, or any member of the board, may compel by service of its subpoena the production of the books, accounts, records, contracts and other documents in writing of (a) any corporation or person owning, holding or controlling, separately or in affiliation with another corporation or person, five per cent or more of the capital stock of any public utility, and of (b) any corporation five per cent of whose capital stock is owned, held, or controlled by any corporation or person so owning, holding or controlling, separately or in affiliation with another corporation, or person, five per cent or more of the capital stock of any public utility, respecting any relation between such public utility and such corporation or person.

The board, or any member of the board, may compel the attendance of witnesses for the purpose of obtaining information as to such books, accounts, records, contracts, and other documents and writings in the same manner that witnesses are now compelled to testify before the board.

Information, books, accounts, records, contracts and other documents in writing obtained by the board through the proceeding hereby authorized shall be used by the board only for the purpose of aiding the board in reaching a determination in a proceeding or on an issue before it, and for no other purpose.

48:2-38. *Testimony of member or employee in civil suits.* No member or employee of the board shall be required to give testimony in a civil suit to which the board is not a party, with regard to information obtained by him in the discharge of his official duty.

48:2-39. *Fees of witnesses.* The fees of witnesses required to attend before the board shall be one dollar for each day's attendance and three cents for every mile of travel, by the nearest generally traveled route, in going to and from the place where the attendance of the witness is required. The fees shall be paid when the witness is excused from further attendance. The disbursements made in payment of such fees shall be audited and paid in the manner provided for the payment of expenses of the board.

No witness subpoenaed at the instance of parties other than the board shall be entitled to compensation from the state for attendance or travel unless the board shall certify that his testimony was material to the matter investigated.

Article 4. Orders of Board.

48:2-40. *Majority vote; service; effective dates; rehearings; revocation or modification.* A majority vote of the board shall be necessary to the making of an order. Every order made by the board shall be served upon the person or public utility affected thereby within ten days from the time the order is filed, by personally delivering or by mailing a certified copy thereof in a sealed package with postage prepaid to the person affected or to an officer or agent of the public utility upon whom a summons may be served. All orders of the board shall become effective upon such dates after the service thereof as may be specified therein. The board at any time may order a rehearing and extend, revoke or modify an order made by it.

48:2-41. *Enforcement.* Observance of the orders of the board may be enforced by mandamus or injunction in appropriate cases, or by suit in equity to compel the specific performance of the order or of the duties imposed by law upon the public utility affected by the order.

48:2-42. *Penalty for noncompliance with orders.* Any person or public utility that shall fail to comply with an order of the board, except an order to resume service which has been discontinued, shall be subject to a penalty of one hundred dollars for every day during which the default continues. Any person or public utility that shall fail to comply with any order of the board directing the public utility to resume service which has been discontinued shall be subject to a penalty of two hundred and fifty dollars for every day during which such default continues. Such penalties shall be recovered in an action at law in the name of the state.

Article 5. Review of Orders of Board.

48:2-43. *Certiorari; application; notice.* Any order made by the board may be reviewed upon certiorari by the supreme court. No certiorari shall be allowed unless application therefor be made within thirty days from the date upon which the order becomes effective, nor unless notice in writing of the application shall have been given to the board with a copy of the affidavits or proofs upon which the application is based. The notice shall be served upon the secretary of the board either personally or by leaving it at the office of the board in Trenton. The evidence presented to the board together with the findings and the order issued thereon, shall be certified by the board to the supreme court as its return.

48:2-44. *Stay of orders in general.* The allowance of a writ of certiorari to review any order of the board shall not supersede or stay the order of the board unless the supreme court or a justice thereof shall so direct. The prosecutor in certiorari may be required by the supreme court or a justice thereof to give bond in such form and amount as the supreme court or the justice thereof allowing the stay shall require.

48:2-45. *Stay of order to resume service.* No stay of any order of the board directing a public utility to resume service which has been discontinued shall be granted unless the public utility shall apply to the supreme court or a justice thereof for a review of the order within ten days from the service thereof.

Written notice of the application for a review and a stay in such case shall be given to the board within five days after the service of the board's order; except, that if the day following service of the order falls on Sunday or a legal holiday the public utility shall have five days following such day to serve the notice. The notice shall be served upon the secretary of the board either personally or by leaving the same at the office of the board in Trenton.

48:2-46. *Setting aside orders.* The supreme court is hereby given jurisdiction to review any order of the board

and to set aside such order in whole or in part when it clearly appears that there was no evidence before the board to support the same reasonably or that the same was without the jurisdiction of the board.

No order shall be set aside in whole or in part for any irregularity or informality in the proceedings of the board unless the irregularity or informality tends to defeat or impair the substantial right or interest of the prosecutor in certiorari.

48:2-47. *Ordering rehearing by board.* If, with respect to any order brought under review by certiorari, it shall appear equitable and just that a rehearing should be had before the board, the supreme court may order that a rehearing be had before the board upon such terms and conditions as are reasonable. The board shall thereupon proceed to a rehearing on the evidence upon which the order under review was based, and upon such additional evidence, if any, as may be produced. As the result of the rehearing the board may readopt the order or alter, amend, modify or extend it.

The court of errors and appeals, on appeal from a judgment of the supreme court upon certiorari to review an order of the board, may, whenever it shall deem it equitable and just that a rehearing should be had before the board, remit the record and proceedings before it to the supreme court to the end that said court may order that such rehearing may be had before the board upon such terms and conditions as are reasonable, as hereinbefore provided.

48:2-48. *Board proceedings to have preference.* Any proceeding in any court of this state directly affecting an order of the board or to which the board is a party shall have preference over all other civil proceedings pending in such court.

Article 6. Penalties.

48:2-49. *Performing, participating in or causing prohibited acts.* Any person who shall knowingly and willfully perform, commit or do, or participate in performing, com-

mitting or doing, or who shall knowingly and willfully cause, participate or join with others in causing any public utility company to do, perform or commit, or who shall advise, solicit or persuade, or knowingly and willfully instruct, direct or order any officer, agent or employee of any public utility company to perform, commit or do any act or thing forbidden or prohibited by this chapter or by sections 48:3-1 to 48:3-7, 48:3-9, 48:3-10 or 48:12-90 of this title, shall be guilty of a misdemeanor.

48:2-50. *Failure to perform required acts.* Any person who shall knowingly and willfully neglect, fail or omit to do or perform, or who shall knowingly and willfully cause or join or participate with others in causing any public utility company to neglect, fail or omit to do or perform, or who shall advise, solicit or persuade or knowingly and willfully instruct, direct or order any officer, agent or employee of any public utility company to neglect, fail or omit to do any act or thing required to be done by this chapter or by sections 48:3-1 to 48:3-7, 48:3-9, 48:3-10 or 48:12-90 of this title, shall be guilty of a misdemeanor.

48:2-51. *Utilities acting unlawfully.* Any public utility company which shall perform, commit or do any act or thing prohibited or forbidden by this chapter or by sections 48:3-1 to 48:3-7, 48:3-9, 48:3-10, or 48:12-90 of this title, or which shall neglect, fail or omit to do or perform any act or thing thereby required to be done by it, shall be guilty of a misdemeanor.

48:2-52. *Rights preserved.* This chapter shall not have the effect to release or waive any right of action by the board or by any person for any right, penalty or forfeiture which may have arisen or which may arise under any of the laws of this state. Any penalty or forfeiture enforceable under this chapter shall not be a bar to or affect a recovery for a right or affect or bar any indictment against any public utility or person operating such public utility, its officers, directors, agents or employees.

CHAPTER 3. PUBLIC UTILITIES IN GENERAL

Article 1. Prohibitions and Restrictions.

48:3-1. *Unjust or unreasonable discriminations or classifications of rates; "board" defined.* No public utility shall:

a. Make, impose or exact any unjust or unreasonable, unjustly discriminatory or unduly preferential individual or joint rate, commutation rate, mileage and other special rate, toll, fare, charge or schedule for any product or service supplied or rendered by it within the state;

b. Adopt or impose any unjust or unreasonable classification in the making or as the basis of any individual or joint rate, toll, fare, charge or schedule for any product or service rendered by it within this state.

The word "board" as used in this chapter shall mean the board of public utility commissioners.

48:3-2. *Unjust or unreasonable regulations.* No public utility shall adopt, maintain or enforce any regulation, practice or measurement which shall be unjust, unreasonable, unduly preferential, arbitrarily or unjustly discriminatory or otherwise in violation of law.

48:3-3. *Improper service; refusal or withholding of service.* No public utility shall provide or maintain any service that is unsafe, improper or inadequate, or withhold or refuse any service which reasonably can be demanded or furnished when ordered by the board.

48:3-4. *Undue preferences.* No public utility shall make or give, directly or indirectly, any undue or unreasonable preference or advantage to any person, locality or particular description of traffic, or subject any particular person, locality or particular description of traffic to any prejudice or disadvantage.

48:3-5. *Capitalizing franchises or contracts for consolidation.* No public utility shall:

a. Capitalize any franchise to be a corporation;

b. Capitalize any franchise in excess of the amount, exclusive of any tax or annual charge, actually paid to the state or any political subdivision thereof as the consideration of the franchise;

c. Capitalize any contract for consolidation, merger or lease; or

d. Issue any bonds or other evidence of indebtedness against or as a lien upon any contract for consolidation, merger or lease.

Nothing herein shall prevent the issuance of stock, bonds or other evidence of indebtedness, subject to the approval of the board, by any lawfully merged or consolidated public utilities not in contravention of this section.

48:3-6. *Gratuities to public officials.* No public utility shall give, grant or bestow upon any local, municipal or county official any discrimination, gratuity or free service.

Nothing herein shall prevent the entry into any public conveyance or in or upon the property of any public utility of any such official in the pursuit of his public duties in connection with the particular conveyance or property so entered by him, upon exhibiting his authority so to do.

48:3-7. *Sales, leases, mortgages or consolidations; approval of board required; exceptions.* No public utility shall, without the approval of the board, sell, lease, mortgage or otherwise dispose of or encumber its property, franchises, privileges or rights, or any part thereof; or merge or consolidate its property, franchises, privileges or rights, or any part thereof, with that of any other public utility.

Every sale, mortgage, lease, disposition, encumbrance, merger or consolidation made in violation of this section shall be void.

Nothing herein shall prevent the sale, lease or other disposition by any public utility of any of its property in the ordinary course of business, nor require the approval of the board to any grant, conveyance or release of any lands or interest therein heretofore made or hereafter to

be made by any public utility to the state or any county or municipality thereof, for public use.

The approval of the board shall not be required to validate the title of the state or any county or municipality thereof, to any lands or interest therein heretofore condemned or hereafter to be condemned by the state or any agency, county or municipality thereof for public use.

48:3-7.1. *Certain contracts between public utilities and corporations or persons owning or controlling utility stock; approval of board; disapproval.* No management, advisory service, construction or engineering contract that in itself or in connection with another contract relating to the same work, project, transaction or service involves the expenditure of a sum exceeding twenty-five thousand dollars, made by any public utility with any person or corporation owning, holding or controlling separately, or in affiliation with another person or corporation, five per cent or more of the capital stock of such public utility or with any corporation five per cent of the capital stock of which is owned, held or controlled by a person or corporation owning, holding or controlling separately, or in affiliation with another person or corporation, five per cent of the capital stock of such public utility shall be valid or effective until approved in writing by the board.

The board shall disapprove such contract if it determines that such contract violates the laws of this state or of the United States, or that the price or compensation thereby fixed exceeds the fair price or fair compensation for the property to be furnished or the work to be done or the services to be rendered thereunder or is contrary to the public interest; otherwise the board shall approve such contract.

No order shall be made by the board disapproving such a contract except after hearing upon notice.

48:3-7.2. *Loans to corporations or persons owning or controlling public utility stock; approval of board required.* Except with the approval in writing of the board first had and obtained, no public utility shall loan any of its money or property to any other person, firm, group, association,

company, trust or corporation owning, holding or controlling separately or in affiliation with others, five per cent or more of the capital stock of any such public utility or to any corporation five per cent or more of the capital stock of which is owned, held or controlled by any person, firm, group, association, trust, or corporation owning, holding or controlling separately or in affiliation, five per cent or more of the capital stock of such public utility.

48:3-7.3. *Investment of depreciation fund in certain securities; approval of board.* No public utility shall, without the approval in writing of the board first had and obtained, invest any part of its depreciation fund in obligations or securities of any kind, except obligations and securities that are legal investments for savings banks under the laws of this state, and except obligations and securities of the underlying or subsidiary public utility corporations of this state, of such public utility.

48:3-7.4. *Depreciation fund investments kept in state.* Every public utility shall at all times keep within this state all obligations and securities in which its depreciation fund is invested and reinvested.

48:3-7.5. *Disposition of certain depreciation fund investments; board may order.* The board may after hearing upon notice order any public utility to dispose of any obligations or securities in which its depreciation fund is now, or may hereafter be, invested, except obligations and securities that are legal investments for savings banks under the laws of this state, and except obligations and securities of underlying or subsidiary public utility corporations of this state, of such public utility.

48:3-7.6. *Balance of depreciation fund to be deposited within state.* Every public utility shall deposit, and at all times keep deposited in its own name and to its own credit and in a banking or trust company located in this state, the balance of the depreciation fund of such public utility which is not invested in accordance herewith or expended in accordance with section 48:2-18 of this title. This provi-

sion shall apply to every depreciation fund whether accumulated before or after March twelfth, one thousand nine hundred and thirty-five.

48:3-7.7. *Certain railroads exempt.* The provisions of sections 48:3-7.3 to 48:3-7.6 of this title shall not apply to any public utility subject to the jurisdiction of the interstate commerce commission owning, operating, managing or controlling a steam railroad within this state.

48:3-7.8. *Records to be kept within state; keeping outside state; consent of board required; production upon notice.* Every public utility shall at all times keep within this state all records, books, accounts, documents and other writings relating to contracts entered into, transactions had, services rendered, business done and property within this state, and shall at no time remove any of such records, books, accounts, documents or writings from this state without the consent in writing of the board first had and obtained.

The board may by order in writing grant consent and permission under such regulations and conditions as it may see fit to impose for the keeping of any of such records, books, accounts, documents and other writings outside of the state in such cases as the board may determine that such consent or permission may be of financial advantage to the customers of the public utility within this state. Such consent or permission so granted may be revoked by the board at any time without notice. A public utility granted such consent or permission shall on the notice in writing of the board produce such records, books, accounts, documents and other writings at such time and place within this state as the board may designate.

48:3-7.9. *Designation of resident agent having custody of records; revocation.* Every public utility shall within fourteen days after March twelfth, one thousand nine hundred and thirty-five, file with the board a designation in writing of an agent, resident of this state, who shall have the custody of such records, books, accounts, documents and other writings, and upon whom process for the pro-

duction of the same before the board may be served. Such designation shall set out the name of such agent, his place of residence within this state and his place of business. Every public utility filing such designation may at any time revoke such designation, provided, that simultaneously with the revocation of such designation, a substituted designation be filed by it with the board.

48:3-7.10. *Chancery to enforce compliance.* Jurisdiction and power is hereby conferred upon the court of chancery of this state, at the suit of the board, to enforce compliance with sections 48:3-7.8 and 48:3-7.9 of this title through sequestration of, or the appointment of a receiver for, the property in this state of any public utility failing to comply with the same.

48:3-7.11. *Service of process to produce records.* In case for any cause service of process to produce such records, books, accounts, documents or other writings cannot be effected upon a designated agent, service of such process may be made within this state upon any officer, agent or employee of such public utility having custody or control of the same, or access thereto.

48:3-7.12. *Certain railroads and railway express exempted.* The provisions of sections 48:3-7.8 to 48:3-7.11 of this title shall not apply to any public utility subject to the jurisdiction of the interstate commerce commission operating, managing or controlling a steam railroad or railway express within this state.

Article 2. Stocks, Bonds and Other Obligations.

48:3-8. *Issuance of stock without par value.* Any corporation organized or to be organized under any law of this state and defined as a public utility in section 48:2-13 of this title may issue its capital stock without nominal or par value, or change its existing capital stock to stock without nominal or par value, as may be provided for in its charter or certificate of incorporation or any amendment thereof, in the manner prescribed by Title 14, Corporations, General.

Nothing herein shall authorize the issue or sale of stock not having par value of any public utility corporation without the approval of the board, nor deprive the board of any authority or jurisdiction over the issue or sale of stock of any public utility now possessed by the board.

48:3-9. *Issuance of stocks and bonds; authority and approval of board required.* No public utility shall issue any stocks, stock certificates, bonds or other evidence of indebtedness payable in more than one year from the date thereof until it shall have first obtained authority from the board for such proposed issue.

The board, after hearing, shall approve the proposed issue maturing in more than one year from the date thereof when satisfied that the same is to be made in accordance with law and the purpose thereof be approved by the board.

48:3-10. *Sale or transfer of stock unless authorized by board prohibited.* No public utility incorporated under the laws of this state shall sell, nor shall any such public utility make or permit to be made upon its books any transfer of any share or shares of its capital stock, to any other public utility, unless authorized to do so by the board. Nor shall any public utility incorporated under the laws of this state sell any share or shares of its capital stock or make or permit any transfer thereof to be made upon its books, to any corporation, domestic or foreign, or any person, the result of which sale or transfer in itself or in connection with other previous sales or transfers shall be to vest in such corporation or person a majority in interest of the outstanding capital stock of such public utility corporation unless authorized to do so by the board.

Every assignment, transfer, contract or agreement for assignment or transfer, by or through any person or corporation to any corporation or person in violation of any of the provisions hereof shall be void and of no effect, and no such transfer shall be made on the books of any public utility corporation. Nothing herein contained shall be construed to prevent the holding of stock lawfully acquired before March fifth, one thousand nine hundred and thirty-five.

Article 3. Municipal Consent to Use of Streets

48:3-11. *Article to govern granting of consents; "street" defined.* Where by law the consent of a municipality is required for the use of any street either above, below or on the surface thereof, such consent shall not be granted except as hereinafter in this article provided.

The word "street" as used in this article shall mean and include any street, avenue, park, parkway, highway or other public place.

48:3-12. *Petition; contents.* No such consent shall be granted by a municipality until a petition shall have been filed with the clerk thereof by the person desiring the same.

The petition shall specify the period for which the consent is asked, and the uses in detail for which the street is desired, and whether above, below or on the surface thereof. In the case of street railway or traction companies, the petition shall further specify the character of the road proposed to be constructed, operated and maintained, the motive power to be used thereon and the streets through which the same shall extend.

48:3-13. *Notice; publication.* The petition shall not be considered by the board or body of such municipality authorized to grant consent until public notice shall be given by publication once a week for at least two weeks in one or more newspapers published and circulated in the municipality, or if there be no such newspaper, in a newspaper published in the county in which the municipality is located, to be designated by such board or body, and by posting the notice in five of the most public places in the municipality for at least fourteen days before the meeting of the board or body at which the application shall be considered.

48:3-14. *Notice; contents.* The notice shall specify the name of the person or corporation presenting the petition, the date and hour when the same will be considered by the board or body of such municipality authorized to grant consent, the date of filing the same, the character of the use to which the street is to be put, and the time for which

permission or consent is sought. In the case of street railway or traction companies, the notice shall further specify the character of the road proposed to be constructed, operated and maintained, the motive power to be used thereon and the street in the municipality through which the same shall extend.

48:3-15. *Grant by ordinance; fifty-year limit.* Upon the date fixed by the notice, or upon such subsequent date as the hearing of the petition may be adjourned, the board or body of such municipality authorized to grant consent may, by ordinance and not otherwise, grant for a period not exceeding fifty years, the right to use the street petitioned for.

The ordinance shall not be acted upon by such board or body at the meeting at which the same is introduced but shall be laid over for not less than fourteen days and not passed until a subsequent regular meeting of the board or body or an adjourned meeting thereof.

48:3-16. *Acceptance of ordinance granting consent to be filed.* The consent granted by the ordinance shall not become effective unless an acceptance in writing of the ordinance shall be filed by the person applying for consent with the clerk or other equivalent officer of the board or body of the municipality granting the consent, within thirty days after receiving notice of the passage of the ordinance.

48:3-17. *Construction; exceptions.* The provisions of this article are in addition to other conditions imposed by law.

This article shall not apply to any railroad company, or to the giving of consent by one municipality for the use of any of its streets, either above, below or on the surface thereof, to another municipality for the laying therein of municipal water mains, upon obtaining such consent in the manner provided by law.

Article 4. Joint Use of Poles.

48:3-18. *Agreements between corporations.* Any corporation, municipal or otherwise, may enter into a written

agreement with any other such corporation owning or using any poles erected under municipal consent in any street, highway or other public place for the use by the former corporation of the poles upon such terms and conditions as may be agreed upon by the corporations.

48:3-19. *Municipal consent.* The consent of the municipality shall be obtained for the use by a corporation of the poles of another corporation unless each corporation has a lawful right to maintain poles in such street, highway or other public place.

48:3-20. *Powers, rights and franchises not impaired.* Such joint use of poles shall not lessen or impair the powers, rights, privileges and franchises of either corporation. Each corporation shall have the same powers, rights, privileges and franchises in respect to poles jointly used as each corporation has in respect to poles and wires under the laws of this state.

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Nos. 299 and 329.

IN THE

Supreme Court of the United States

October Term—1942.

No. 299.

JERSEY CENTRAL POWER & LIGHT COMPANY,
Petitioner,

v.,

FEDERAL POWER COMMISSION,
Respondent.

No. 329.

NEW JERSEY POWER & LIGHT COMPANY,
Petitioner,

v.

FEDERAL POWER COMMISSION,
Respondent.

REPLY BRIEF FOR PETITIONERS.

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IN THE

Supreme Court of the United States

OCTOBER TERM—1942.

JERSEY CENTRAL POWER & LIGHT COMPANY, Petitioner; v. FEDERAL POWER COMMISSION, Respondent.	No. 299.
NEW JERSEY POWER & LIGHT COMPANY, Petitioner, v. FEDERAL POWER COMMISSION, Respondent.	No. 329.

REPLY BRIEF FOR PETITIONERS.

This reply brief will employ the same designations of persons and statutes as the petitioners' original joint brief. The use of italics in quoted excerpts indicates emphasis supplied by petitioners.

I. Clarification of Facts.

Petitioners deem it essential to correct certain clearly erroneous inferences of fact made in respondent's brief.

A. Lack of Joint Motivation or Operation.

Respondent seeks to create the impression that the three companies, Jersey Central, Public Service and Staten Island, were, by design, participating in a joint operation having for its object the delivery to Staten Island of elec-

tric energy generated by Jersey Central. Nothing could be further from the facts. There is no substantial evidence, and in fact no evidence whatsoever, to support such a conclusion.

Respondent states that the bus bar at the Mechanic Street substation of Public Service "serves as the common point of connection for the three utilities" (Resp. Br., p. 6), and that the three companies are engaged in "interconnected pool operations" (Resp. Br., p. 11). In point of fact, the electric facilities of Jersey Central and Staten Island are not interconnected at any point, although each has a connection with the circuits of Public Service. Nor do Jersey Central and Staten Island have any dealings whatsoever with each other, the Court below finding explicitly that "There were no commercial transactions whatsoever between the Staten Island Company and Jersey Central" (R. 1133). Jersey Central does not sell any energy directly or indirectly to Staten Island, and does not transmit any energy to Public Service which is intended or destined for Staten Island (R. 293). In the electric business the term "interconnected pool operations" has a recognized significance (Cf. R. 174-178), and respondent could not have been so uninformed as inadvertently to have used the term improperly. The record is clear that neither Staten Island nor Jersey Central are in any sense parties to any pooling arrangement (R. 174, 293).

Respondent implies that the three companies are interdependent, by placing in juxtaposition the statements that Jersey Central had excess generating capacity (Resp. Br. p. 7, fn. 4) and that Staten Island is dependent on Public Service (Resp. Br. p. 8, fn. 6). Since the capacity of Public Service was amply sufficient to take care of its own needs and those of Staten Island without help from Jersey Central (R. 694-5), any implication that Jersey Central and Staten

Island are interdependent is clearly unjustified. A statement in respondent's brief that the connection of Public Service with Jersey Central was relied upon as making the Staten Island interconnection with Public Service more dependable (Resp. Br. p. 8) is utterly without justification. Staten Island did not rely on it (R. 363, 365). The connection between Staten Island and Public Service was in use long before the making of the Public Service-Jersey Central connection (R. 367, 273) and a Public Service official testified that they had no difficulty in meeting Staten Island's demands without reference to Jersey Central (R. 695). Furthermore, the Staten Island-Public Service connection is an emergency connection which is seldom used. (R. 349).*

Respondent's claim of "interdependence" among the three companies must be considered in the light of respondent's admission that Public Service had sufficient capacity to carry its loads; that Jersey Central also had sufficient capacity (Resp. Br. p. 7, fn. 4); and that Staten Island was able to meet its own load without the use of the cable connection with Public Service (Resp. Br. p. 8, fn. 6). In fact, the record shows that in 1937 Staten Island had 47,500 kilowatts capacity (R. 72, 368) compared to a peak demand of 31,700 kilowatts (R. 73), and that the cable was out of service

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* Basic data concerning this connection are: that the connection was used for emergency purposes only ten times, and for very brief periods, from August 26, 1935 to March 14, 1938; that on four such occasions the interruption was so short that no kilowatt hours were recorded; that from August 26, 1935 to April 30, 1937 the total economy energy taken by Staten Island from Public Service was about enough to run a 25 h.p. motor; and that no economy energy was taken from April 30, 1937 to March 14, 1938. (Respondent's Exhibit No. 3, R. 360, 1071-3; R. 349, 355-360, 525.) As to incidental or slop-over energy, during the period from August 26, 1935 to March 14, 1935, Staten Island actually returned more such energy to Public Service than it received. (Respondent's Exhibit No. 5, R. 481, 1075).

on several occasions, sometimes for as long as five days (R. 441-2).

Apparently for the same purpose respondent refers to certain testimony* to the effect that sudden demands by Staten Island on Public Service were instantaneously reflected in Jersey Central's generation (Resp. Br. p. 9, fn. 7). Such testimony is graphically controverted by New Jersey Power's Exhibit No. 8 (R. 1078½, 538), which shows that at 2:24 A. M. on August 13, 1936, when Staten Island suddenly made the largest draft on Public Service for emergency power during the entire period from the date of the enactment of the Federal Power Act to the date of the stock acquisition in question (R. 534), the flow of energy from Jersey Central to Public Service remained unaffected. This phenomenon, which is directly contrary to the picture presented in respondent's brief, is readily understandable in the light of expert engineering testimony in the record to the effect that the generating capacity of Public Service is so great (684,500 kilowatts, R. 97) that no demand capable of being made by Staten Island on Public Service through the cable, has any effect on the quantity of energy being generated by Jersey Central (R. 667).

Petitioners must call the attention of the Court to obvious, albeit presumably unintended, misrepresentation of vital fact at page 9 of respondent's brief where, immediately

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* Commission witness Bennett testified that a heavy Staten Island flow had an "effect" upon the flow of energy from Jersey Central to Public Service (R. 775). Pressed more closely, Mr. Bennett admitted that the "effect" which he spoke of lasted less than one-half minute and that the amount of energy flowing across to Staten Island was approximately 20 KWH (R. 841), which, even at residential rates, amounts to less than $1 in value. At the end of this very brief interval, *although the demand by Staten Island continued just as heavy upon Public Service*, the "effect" upon Jersey Central disappeared (R. 839; see Resp. Exh. No. 8, R. 1079, 539).

after showing in kilowatt hours the amount of energy passing between Public Service and Staten Island for the years 1934 to 1937, respondent makes the bald statement: "Log sheets maintained at Public Service's Mechanic Street substation show that energy *so transmitted* from Public Service to Staten Island is energy supplied by Jersey Central" (Resp. Br. pp. 9-10). Respondent thus asserts that every kilowatt hour of energy which flowed from Public Service to Staten Island was energy generated by Jersey Central. The log sheets at Mechanic Street certainly make no such showing. Even the respondent's engineers never made any such contention. Respondent blithely overlooks the fact that three Public Service substations are connected to the bus bar at Mechanic Street, and that an official of Public Service testified that that company can deliver from its own system, via its Metuchen substation, electric energy in an amount equal to *twice* the greatest possible load (including any demand by Staten Island) which might be put on Mechanic Street (R. 694-5).

As a matter of fact, respondent's engineers, despite their best efforts, could not prove what *quantity* of Jersey Central's energy ever found its way to Staten Island. Hence the statement by the Court below: "How much of the electricity which flowed from Public Service to the Staten Island Company originated in Jersey Central's South Amboy generators and passed over the connecting line from South Amboy to the Mechanic Street Substation and thence through the bus-bar to the Staten Island Company, *no one can say*" (R. 1121). All the Commission's evidence showing any flow from Jersey Central to Public Service contemporaneously with a flow from Public Service to Staten Island, is expressed in kilowatts and not kilowatt hours; in other words, no *duration* of flow is given. What is involved is nothing more than mere momentary pulsations having no commercial significance.

B. The Commission's Selection of Log Readings.

With respect to the analysis made by the Commission of the log readings at the Mechanic Street substation, the brief of respondent states (Resp. Br. p. 10) that such analysis was made of "24 of the 184 readings, picked at random as representing typical conditions * * *". We are astonished that the text of respondent's brief should be so phrased as to indicate, as does the passage just quoted, that the 184 readings were picked at random, when, as the record shows, they were deliberately selected by an experienced electrical engineer with a view toward proving a certain proposition (R. 266). Of the 25,500 readings available to this engineer 184 were carefully hand-picked; the only sampling was of the 24 which were "further analyzed", to produce Commission Exhibit 16A (R. 763, 1004). There is nothing to show that the 184 readings deliberately selected do not include *all* readings which tended in any way to support the Commission's case.

In a footnote respondent refers to the alleged "almost daily" transmission of electric energy, throughout 1936, 1937 and to September, 1938, from the generating plant of Jersey Central over its facilities and those of Public Service to Staten Island (Resp. Br. p. 19, fn. 9). The only authority cited in support of this assertion is the conclusion of the Commission in its Determination (R. 939), which, it is submitted, has no support in the record. Of the above-mentioned 25,500 readings, *none* occurred in *1936;* from the 184 selected readings there were shown to be 24 *moments of time* at which energy generated by Jersey Central is shown to have reached Staten Island. These 24 moments occurred on 8 days, only 4 of which were prior to March 14, 1938, the date of the stock acquisition which gave rise to this proceeding (Comm. Exh. No. 16A, R. 763, 1004). How

can respondent, on this flimsy showing, talk of "almost daily" transmission from Jersey Central to Staten Island?

C. Alleged "Reverse Flow" from Staten Island to Jersey Central.

Respondent seeks to support the judgments of the Court below by alleging that there was transmission of energy in interstate commerce from Staten Island to Public Service and thence to Jersey Central. As noted in petitioners' original brief (Pet. Br. p. 23, fn.), the Court below placed no reliance upon and did not even mention this contention. Doubtless the Court rejected the contention (which was also made below) for the reasons that:

(a) From the entire 25,500 log readings the Commission was able to refer to only one moment of time (on May 8, 1938) in which it could be said that *some part* of slop-over energy coming from Public Service to Jersey Central was generated by Staten Island. (See Pet. Br. 23, fn., and Comm. Exh. Nos. 18 and 18A, R. 130, 1009, 758, 1010; and R. 132).

(b) That single moment of time occurred *subsequent* to March 14, 1938, the date of the stock acquisition which gave rise to the present controversy.

(c) That instance must necessarily have involved not only slop-over energy as between Staten Island and Public Service, but between Public Service and Jersey Central as well. (R. 277 shows that such energy could not have been firm, emergency or economy flow power from Public Service to Jersey Central, and Staten Island supplied no firm, emergency or economy flow power to Public Service. R. 363, 421).

II. The Considerations Urged by Respondent Do Not Warrant the Conclusion that Jersey Central is a "Public Utility".

A. Jersey Central Does Not Transmit From a State.

Petitioners and respondent both agree that an essential question in this case is whether Jersey Central was engaged in the transmission of electric energy "from a State", within the terms of the Act. Respondent contends that transmission of electric energy is "an unbroken chain from the point where generation is complete" (Resp. Br. p. 21, fn. 11). For this proposition *Utah Power & Light Company* v. *Pfost*, 286 U. S. 165, is cited. Categorically and unequivocally, we contend that the *Pfost* case did not so hold.* Instead, *the major premise of the decision in that case is one of the premises on which our case is based*—to wit, that although from a strictly scientific standpoint the generation and various stages in the transmission and consumption of electric energy occur instantaneously, this Court, in applying established judicial criteria as to what constitutes interstate commerce, may and should divide such phenomena into those stages which, from a practical and functional standpoint, *are* separate.

The facts of the *Pfost* case were as follows: The State of Idaho levied a license tax on the manufacture, generation or production, within the state, for sale, of electrical energy. Utah Power & Light Company generated elec-

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* Nor does *East Ohio Gas Co.* v. *Tax Commission*, 283 U. S. 465, aid the respondent. That case merely held that after transportation of gas across the state line had been effected, continued transportation by one forwarding it, with knowledge of its interstate character, to its originally intended destination, was interstate commerce. Such a holding is not in point in the present situation.

tricity at a hydro-electric plant in Idaho and transmitted it across state lines. It was taxed by the State of Idaho, and it protested. The question before the Court specifically was whether generation could be separated from transmission, so as to consider generation an intrastate activity. Such eminent scientists as Dr. Robert A. Millikan and Dr. Irving Langmuir testified for the company on the "instantaneous" movement of electricity from generator to transmission facilities. This Court wrote (p. 180):

> "However lacking it may be in body or substance, electrical energy, nevertheless, possesses many of the ordinary *tokens of materiality.*"

And (p. 180):

> "The manufacture to order of goods and their immediate shipment to the purchaser furnish a helpful analogy, notwithstanding the fact that there the successive steps from order to delivery are open to physical observation, while here *the succession of events is chiefly a matter of inference...*"

What are the "tokens of materiality" which the Court holds that electric energy has? They are the practical and functional attributes which, for the purpose of the application of legal concepts, electric energy is held to possess.

The present case sharpens the question in the *Pfost* case. There, generation was separated from transmission even though "the succession of events is chiefly a matter of inference." *A fortiori* in the present case, where the statute differentiates transmission in interstate commerce from transmission in intrastate commerce, the transmission of energy by Jersey Central is properly separable, on a practical, functional basis, from transmission of energy by Public Service, for reasons fully developed in our main brief (Pet. Br. pp. 37-39). Accordingly, Jersey Central

does not transmit electric energy "from a State", and is not subject to the Commission's jurisdiction.

B. The Interstate Commerce Cases Relied on by Respondent.

Petitioners have referred (Pet. Br. pp. 55-69) o the decided cases relating to the distinction between interstate and intrastate commerce in order to show what Congress intended by the expression "transmission of electric energy in interstate commerce" and similar expressions used in Section 201 of the Act. Petitioners contend that under these decisions a person can be held to transmit or transport a commodity or article in interstate commerce only upon a showing that the one so charged (a) has an intention that such commodity or article reach a second state; (b) has an ability to control the movement toward the intended destination; and (c) engages in sufficient activity, by means of his control and in furtherance of his intention, to effectuate the desired result without unreasonable delay. Respondent, on the other hand, contends that if there be an interstate movement without pause or rest, the mere participation of any person in such movement is sufficient to charge him with the consequences flowing from his innocent participation (Resp. Br. pp. 15, 31-33). Respondent also contends (merely "arguendo") that if it is necessary to show an intention on the part of Jersey Central to transmit energy to Staten Island, such intent is shown by the record (Resp. Br. p. 34 *et seq.*). Petitioners will answer these contentions of respondent *seriatim*.

(1) *The Necessity for "Interstate Intent".*

The language of the Court in *Oregon-Washington R. & Nav. Co.* v. *Strauss & Co.*, 73 Fed. (2nd) 912, cert. den., 294 U. S. 723, states in succinct fashion the views

repeatedly expressed by this Court in support of the contention of petitioners that, contrary to the first proposition advanced by respondent, "interstate intent" must exist on the part of a shipper or transmitter, if that person is to be charged with engaging in interstate commerce. The carrier in that case was unsuccessful in establishing that it was entitled to charge an interstate tariff, since it was unable to plead and prove that "Prior to the time that each shipment mentioned in this complaint left the interior point of origin, the defendant intended that such shipment would be transported into another state or to a foreign country; and that such shipment was in fact so transported". (73 Fed. (2nd) 912, 915)

Respondent seeks to meet the cases advanced by petitioners in support of this contention by erroneously asserting that such cases fall "into two general categories: (1) Where a commodity which had been transported interstate was thereafter locally distributed within a state, and (2) Where after intrastate movement and prior to movement out of state, a commodity had come to a complete rest within the state of origin . . ." (Resp. Br. p. 30). This classification is irrelevant upon petitioners' proposition that intent and control are essential elements in determining the character of the transportation or transmission. In addition, respondent's classification is erroneous. Petitioners cited, among other cases, *New York* v. *Knight*, 192 U. S. 21, *Southern Pacific Co.* v. *Arizona*, 249 U. S. 472, *New York Central Railroad* v. *Mohney*, 252 U. S. 152, *Superior Oil Co.* v. *Mississippi*, 280 U. S. 390, and *Department of Treasury* v. *Wood*, 313 U. S. 62, (Pet. Br. pp. 58, 61, 65, 60). The first three of these cases involved the transportation of persons who intended to leave the state on the journey of which the phase in question was a part. The latter two of these cases involved an intentional sending of commodities from the

state of origin "forthwith,"* as a part of the transaction in question, and with the knowledge of the person sought to be charged. In each case the lack of control over the movement was such that, despite the interstate intent, the proposed continuous movement was held not to have reached the interstate phase, and this despite the actual effectuation of the intent in the last two cases.

Respondent also seeks to meet the cases advanced by petitioners by citing (Resp. Br. p. 31) other decisions said to involve facts "more analogous" to the situation herein presented, in which a conclusion was reached that there was interstate commerce.

A. Of these "more analogous" cases, in the following intent was an element which the Court considered determinative of or material to the interstate character of the transportation or transmission:

> *Kelley* v. *Rhoads*, 188 U. S. 1. "The question turns upon the purpose . . ." (p. 7).
>
> *Southern Pacific Terminal Co.* v. *Interstate Commerce Commission*, 219 U. S. 498. ". . . the wharves were intended for shipping facilities, . . ." (p. 526); ". . . the shipments . . . were all destined for export" (p. 527).
>
> *Texas & N. O. R. R. Co.* v. *Sabine Tram Co.*, 227 U. S. 111. The shipper "supposed . . . that the lumber was intended for export . . ." (p. 118).
>
> *Western Oil Refining Co.* v. *Lipscomb*, 244 U. S. 346. ". . . the shipper intended from the beginning that the transportation should be continued . . ." (p. 349).
>
> *Western Union Telegraph Co.* v. *Foster*, 247 U. S. 105. The original interstate character continued to "the point where the parties originally intended that the movement should finally end" (p. 113).

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* *Department of Treasury* v. *Wood*, 313 U. S. 62, 68.

United Fuel Gas Co. v. *Hallanan*, 257 U. S. 277. ". . . a steady flow, ending, as contemplated from the beginning, beyond the state line." (p. 281).

Dahnke-Walker Milling Co. v. *Bondurant*, 257 U. S. 282. ". . . the plaintiff intending to forward the grain to its mill as soon as the delivery was made" (p. 292).

Baltimore & O. S. W. R. R. Co. v. *Settle*, 260 U. S. 166, ". . . the original and continuing intention so to reship made the reshipment, as matter of law, part of a through interstate movement." (p. 168).

Champlain Realty Co. v. *Brattleboro*, 260 U. S. 366. "the mere fact that the owner intended . . . did not put them into transit in interstate commerce. But here, we have the intention put into accomplishment . . ." (p. 374).

Spalding & Bros. v. *Edwards*, 262 U. S. 66. "The transaction, from start to finish, was understood and intended . . . to be for the purpose of exporting the goods to . . . Venezuela." (p. 68).

Hughes Bros. Timber Co. v. *Minnesota*, 272 U. S. 469. ". . . the interstate passage . . . was intended by the parties and had begun." (p. 474).

United States v. *Erie R. R. Co.*, 280 U. S. 98, is comparable to all the above cited cases in that shipper and consignee intended the journey to continue to the ultimate destination.

Carson Petroleum Company v. *Vial*, 279 U. S. 95 quotes with approval excerpts from the *Hughes Bros. Timber Company* case, *supra*, with respect to intention and retention of control.

Respondent includes in this group of cases *Hartford Electric Light Company* v. *Federal Power Commission*, C. C. H. Public Utilities and Carriers Service, p. 17,936 (C. C. A. 2nd), decided November 25, 1942, after the brief of petitioners was filed. Respondent relies considerably on the case (Resp. Br., pp. 20, 22, 23, 25, 29, 31, 41, 43), despite

the fact that the specific question in the case was whether certain facilities were for the *sale* of electric energy at wholesale in interstate commerce.* Indeed the *Hartford* case supports the proposition that an "interstate intent" on the part of the seller is essential to a holding that a sale by him is in interstate commerce.† The Court refers to the palpable knowledge of Hartford that large quantities of energy sold by it were taken directly to a second state, and says:

> "We are not to be taken as saying that a mere sale by A, within a state, to B, who ships the commodity in interstate commerce, would necessarily be a sale in interstate commerce; *the character and extent of the seller's knowledge of the purpose of the purchaser to ship across state lines may be important.*" (p. 17, 940).‡

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* The *factual* situation in the *Hartford* case is in sharp contrast to that in the case at bar. In a nine-months period Hartford Electric Light Company sold Connecticut Power Company 166,144,000 kilowatt hours of electric energy, of which 97,932,000 kilowatt hours were transmitted by Connecticut Power Company to Massachusetts. (C. C. H. Public Utilities and Carriers Service, p. 17,936, 17,939.)

† "Because of petitioner's [Hartford's] former membership in the Exchange, because it has directors and officers interlocking with Connecticut Power and owns a sizable block of Connecticut Power's stock, petitioner cannot possibly lack knowledge of the fact that the sales by it to Connecticut Power are indispensable to those exchange arrangements which culminate in the transmission to, and sale of, considerable quantities of electric energy in Massachusetts. Indeed, the record shows that petitioner openly admitted that it has such knowledge. Petitioner, therefore, is fully aware that some of such energy is unavoidably destined by the buyer for interstate use." (C. C. H. Public Utilities and Carriers Service, p. 17,936, 17,941.)

‡ In support of the contrary proposition that for a transaction to be "in" interstate commerce, it is not necessary that the intention or knowledge fixing the out-of-state destination be that of the party first having custody or title, respondent relies upon *Texas & N. O. R. R. Co.* v. *Sabine*

The *Hartford* case is also significant for the emphasis which it places on the fact that Section 201(b) confers jurisdiction upon the Commission disjunctively over facilities for transmission *or* facilities for sale. Judge Learned Hand, in concurring in the result, placed particular stress on this point.

This emphasis suggests that the primary, if not the sole, purpose of Congress in including as a "public utility" a person owning or operating transmission facilities, as distinguished from facilities for sale, was to cover the situation in which the owner of transmission facilities is not engaged in the sale of any electric energy in interstate commerce, but makes such facilities available for carrying energy from a point in one state to a point in a second state. In practice, this would occur where A wishes to sell to C, in a second state, but has no connecting facilities, and B,

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Tram Co., 227 U. S. 111, 126; *United States* v. *Rock Royal Co-operative*, 307 U. S. 533, 568-569; *Mulford* v. *Smith*, 307 U. S. 38, 47; *Currin* v. *Wallace*, 306 U. S. 1, 10; and *Eureka Pipe Line Company* v. *Hallanan*, 257 U. S. 265, 272 (Resp. Br. pp. 36-37). In the *Sabine Tram* case, the party sought to be charged in fact supposed that the goods were intended for exportation and such belief was based on intimate knowledge of many facts surrounding the transaction. In the *Eureka Pipe Line* case, the Court definitely stated that the intent of the pipe line company, the one charged with the interstate business, was an interstate intent and determined the character of the movement from its beginning. In the *Rock Royal* case, and in *Mulford* v. *Smith* and *Currin* v. *Wallace*, the intent was found from the fact that the normal course of business established that "practically all" of the commodity handled was destined to points beyond the state in the usual course of business and that the party charged with engaging in interstate commerce was intimately familiar with that course of business. In other words, none of these cases support the contention that the intent or knowledge of the party participating in the original shipment or transmission is immaterial. In fact, they hold directly to the contrary.

for a charge, provides his facilities to transmit (or "toll") the energy from A to C. This interpretation is consonant with the following statement by Senator Wheeler, Chairman of the Senate Committee on Interstate Commerce, in the Senate Report on the revised bill:

> "Section 201 which sets forth the subject matter covered by part 2 of title II has been materially rewritten. A declaration of the necessity for Federal regulation of the interstate part of the electric business has been added as subsection (a). Subsection (b), formerly (a), which states the subject matter to which the part relates, has been clarified *to make plain* that it includes *interstate transmission where there is no sale* and excludes all facilities used only for production of [or] transmission in intrastate matters or in local distribution." (Senate Report No. 621, 74th Cong., 1st Sess., p. 19.)

Such an interpretation of Section 201(b) is amply supported by Section 206(a), where the Commission is empowered to determine the just and reasonable rate or charge "demanded, observed, charged or collected by any public utility for any transmission *or* sale *subject to the jurisdiction of the Commission*". In the case at bar, it is obvious that the price paid by Public Service to Jersey Central was a price for *energy*, not a rental or tolling charge for the *transmission* by Jersey Central of energy over seven-eighths of a mile of line. The absurdity in and difficulty created by respondent's position are demonstrated if one assumes Jersey Central to be subject to the jurisdiction of the Commission by virtue of its ownership of the seven-eighths of a mile of line from the South Amboy plant to the Raritan River, and then inquires as to the basis upon which the Commission would, under Section 206, seek to regulate the charge for the "transmission" in question.

B. In certain other cases cited by respondent as "more analogous", control of destination was the important factor, intention being obvious or admitted. Not unnaturally, most of the gas and oil transportation cases fall into this category, since oil or gas put into a pipe line system is obviously intended to travel in the pipe line until used or otherwise removed.

> *Eureka Pipe Line Co.* v. *Hallanan*, 257 U. S. 265. "... the pipe line company ... was the master of the destination ... Therefore its intent and action determined the character of the movement from its beginning, ..." (p. 272);
>
> *The Pipe Line Cases*, 234 U. S. 548;
>
> *Pennsylvania Gas Co.* v. *Public Service Commission*, 252 U. S. 23.

Considerable reliance (Resp. Br. 31, 21, 27, 30, 32, 38) is placed by respondent on two natural gas cases, *Peoples Natural Gas Co.* v. *Federal Power Commission*, 127 Fed. (2nd) 153, cert. den., 316 U. S. 700, and *Illinois Natural Gas Co.* v. *Central Illinois Public Service Co.*, 314 U. S. 498. Actually, these two cases accord with petitioner's contention that intent and control are essential elements in determining whether a given person is engaged in interstate commerce. The relation of parent and wholly-owned subsidiary in the *Illinois Natural Gas Co.* case evidenced both intent and effective control over the interstate movement of gas flowing from one company to the other. It is significant that the language of the Court was, "Pursuant to the mutual agreement of the two companies" the transportation was controlled and effectuated as intended (p. 503). In the *Peoples Natural Gas Co.* case, the seller and the purchaser were affiliates, and this fact, plus the immediate and continuous transportation of the gas into another state, demonstrated the clear intention of Peoples Natural Gas Co. to engage in interstate commerce.

These distinctions make it unnecessary to refer to the lack of any provision in the Natural Gas Act (52 Stat. 821, 15 U. S. C. A. §717) comparable to subsections (a) and (b) of Section 201 of the Federal Power Act.

C. The only remaining case cited by respondent as "more analogous" is a case where "the essential character" of the transaction was determined by "the normal contemplated and followed course" which evidenced, as a matter of law, the intent of the party charged therewith, viz., *Lemke* vs. *Farmers' Grain Co.*, 258 U. S. 50 There ". . . practically all the wheat purchased by the complainant was for shipment [out-of-state]. . . . That was the course of business and fixed and determined the interstate character . . ." (p. 55).*

(2) The Lack of "Interstate Intent" on the Part of Jersey Central.

"Assuming, arguendo, the necessity for the existence of an intent upon the part of Jersey Central when transmission starts, fixing the out-of-state destination," respondent states that "such intent is shown by the evidence in the record". (Resp. Br. p. 34).

At the outset respondent is confronted with the fact that *neither the Commission nor the Court below made any finding of such intent on the part of Jersey Central.* On the contrary, the ultimate facts upon which respondent relies are

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* *Flanagan v. Federal Coal Co.*, 267 U. S. 222, referred to by respondent (Resp. Br. p. 33), is a similar type of case. There the Court pointed out: "It was understood . . . that these dealings were steps in sending coal from the mines to purchasers in other states. . . . Flanagan [the vendor] understood the course of business in which he was expected to cooperate and did cooperate". (p. 225).

(1) the existence of two wholly separate, unrelated contracts;

(2) the fact that Jersey Central, Public Service and Staten Island operate in synchronism; and

(3) the alleged knowledge of the operators and officials of "the companies involved."

As to the first point, it is sufficient to point out that in 1931 Jersey Central and Public Service, without any consideration of Staten Island or its needs (R. 332), entered into a written contract for the supply of emergency energy by either to the other and some time later entered into a "verbal arrangement" for the interchange of economy flow. (R. 275, 276, 285). In 1936 a letter was written by Public Service to Staten Island, embodying an arrangement for the sale or exchange of emergency or economy flow energy, and there is not the slightest indication in the contract or in the record that such arrangement had any relation to Jersey Central or its needs (R. 349, 1068-9). There were no contractual or other arrangements whatsoever between Jersey Central and Staten Island.

As to synchronism, although synchronization is necessary if emergency energy is to be interchanged, this manner of operation is of no evidentiary significance on the question of the "interstate intent" of Jersey Central. This is true since: (a) "Electric power does not flow because machines are operated in synchronism" (R. 537); (b) there was no agreement or arrangement between Jersey Central and Staten Island to operate in synchronism; and (c) as shown immediately below, there is no showing that the officers or operators of Jersey Central knew or were concerned with whether its operation was in synchronism with that of Staten Island.

Finally, despite the lack of any such finding by the Commission or the Court below, respondent claims that "the evidence is that the operators and officials of the companies involved [presumably including Jersey Central] *knew* that the electric energy was bound to flow as it did" and "*did nothing to prevent such flow*". (Resp. Br. p. 35).

This is a gross distortion of fact. The record references cited by respondent do not refer to testimony by any operator or official of Staten Island, Public Service or Jersey Central. The testimony in question was given by a witness, who, *subsequent to* the initiation of the present proceeding, made an examination of the facilities at the Mechanic Street substation of Public Service (R. 712-3). It is amazing that respondent should impute to *Jersey Central* information which this witness, who had had no connection whatever with Jersey Central (R. 598), might have gleaned from his study of the operations of the Mechanic Street substation, or that respondent should rely on his testimony as showing that the operators and officials of any of the companies "did nothing to prevent" the flow of slop-over energy, in view of the fact that the witness did no more than express *his* opinion of what *he* knew. (R. 565). It is significant that respondent fails to refer to the testimony in the record by the actual operators of Jersey Central and Staten Island, to the effect that Jersey Central, in selling energy to Public Service, had no knowledge or intention that such energy would be used by anyone other than Public Service (R. 285, 290, 293); that Staten Island, when it received energy from Public Service, assumed that such energy was generated by Public Service itself (R. 363); and that elaborate measures were taken to prevent the flow of energy across the Staten Island-Public Service cable except at the rare times when an emergency existed (Pet. Br. pp. 16-19, R. 361-3, 409-411).

Respondent asserts (Resp. Br. p. 36) that Jersey Central had particular reasons and opportunity for familiarity with Public Service operations. On the contrary, the record references indicate that whatever knowledge Jersey Central had of Public Service operations related to the latter's cost of generating energy, and did not extend to the operations of Public Service in its transactions with Staten Island (R. 331-2). Mr. Crumley, President of Jersey Central, testified on cross examination, that Jersey Central does not know all the details of Public Service's load (R. 331); that Jersey Central does not know what Public Service's demand is on the entire Public Service system, and that in arriving at the arrangements between Public Service and Jersey Central no consideration was given to the arrangements between Public Service and Staten Island (R. 332). Without such knowledge it could not know that it might at 24 out of 25,500 moments of time, over a period of 21 months, generate energy which Staten Island would receive. The intention of Jersey Central was to transmit energy simply to the facilities of Public Service on the south bank of the Raritan River, within the State of New Jersey. At most, it had "indifferent knowledge"* as to what happened thereafter. It had no control over the future course of the energy.

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* This succinct and meaningful phrase was used by Mr. Justice Holmes in *Superior Oil Co.* v. *Mississippi*, 280 U. S. 390, 395. In *Hartford Electric Light Company* v. *Federal Power Commission*, C. C. H. Public Utilities and Carriers Service, p. 17,936 (C. C. A. 2nd, Nov. 25, 1942), the phrase was again used. Respondent attempts to distinguish *Superior Oil Co.* v. *Mississippi*, *supra*, on the ground that it was a tax case (Resp. Br. p. 33, fn. 20) However, as the Court is aware, tax cases are equally important with other types of cases in defining the concept of interstate commerce, and in fact a large percentage of the cases relied upon by respondent itself are tax cases.

III. Regardless of Jersey Central's Status, the Considerations Urged by Respondent Do Not Warrant the Conclusion that the Stock Transaction in Question Was Subject to the Jurisdiction of the Commission.

A. The Terms of Section 203(a) Do Not Compel the Conclusion that the Transaction was Subject to the Jurisdiction of the Commission.

In its brief, respondent urges that full cognizance may be given to the last clause of Section 201(a) by application of that portion of Section 203(a), which provides for the giving of notice to the Governor and the state commission of each of the states in which the physical property affected, or any part thereof, is situated.*

Petitioners submit that this provision for notice is intended to afford a means of advising the states involved so that (a) if their commissions have regulatory power they may assert the same, or (b) if their commissions do not have regulatory power (and, according to the Commission's own report [see Pet. Br., p. 80] there are twenty commissions which do not have such power over acquisitions of stock of a utility), representatives of the states involved may nevertheless consult with and be heard by the Commission with respect to their views on the matter. The notice provision is thus entirely consistent

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* The contention presented by petitioners, that the Commission has no jurisdiction over Jersey Central because the State of New Jersey exercises complete regulation of that company's affairs (Pet. Br., pp. 69-77), is not separately treated by respondent. However, respondent challenges the contention by discussing purported implications of certain sections of the Act (Resp. Br., pp. 25-28). The nature of these sections has been adequately discussed in petitioners' main brief (Pet. Br., pp. 72-74), except for Sections 203(a) and 209, which are considered under this Point III.

with the principal of exclusive state regulation of matters subject to state regulation and, in fact, affords a means of enabling state authorities to prevent an invasion of their jurisdiction.

To say that this provision "for administrative reconciliation of possible divergent views between the Commission and state regulatory agencies" (Resp. Br., p. 41) of itself limits Federal regulation "only to those matters which are not subject to regulation by the States" is to demonstrate the weakness of respondent's contention. Neither is such limitation recognized by possible reference, as respondent suggests (Resp. Br., p. 41), to a joint board (provided for in Section 209) on which state representatives may serve, since the granting of such a reference, revocable at will by the Commission, is entirely in its discretion.

B. Section 201(a) Compels the Conclusion that, if the Stock Transaction was Effectively Regulated by New Jersey, It Was Not Subject to the Jurisdiction of the Commission.

Despite respondent's own earlier reliance on Section 201(a) as *supporting* its jurisdiction (*Matter of Otter Tail Power Company*, 33 P. U. R. (N. S.) 257), respondent now dismisses that section lightly as not being of "positive" force (Resp. Br., p. 25). Section 201(a) is, of course, as much a part of the statute as Section 203. If there were the slightest doubt, despite the clarity and directness of the last clause of Section 201(a), whether that clause expressed the "policy of the legislation as a whole,"* it is resolved by reference to the nature of matters sought to be regulated, the assurances given state authorities at the time of passage of the Act, and the reasons for the regulation prescribed by the Act, as found in the statements of the Act's own sponsors.

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* *Cf. United States* v. *N. E. Rosenblum Trucking Lines, Inc.*, 315 U. S. 50, 55, cited in petitioners' brief, p. 71.

It is incontrovertible that the "matters" sought to be regulated were "interstate wholesale transactions" (the *Attleboro* "gap") and "other features of this interstate utility business * * * immune from State control either legally or practically" (Senate Report, No. 621, 74th Cong., 1st Sess., p. 17; and compare House Report No. 1318, 74th Cong., 1st Sess., p. 7, quoted at p. 54 of petitioners' brief). Equally specific is the Senate Committee's statement: "The revision [S. 2796, as distinguished from the original bill, S. 1725] has also removed every encroachment upon the authority of the States. The revised bill would impose Federal regulation only over those matters which cannot effectively be controlled by the States." (Senate Report No. 621, 74th Cong., 1st Sess., p. 18.) Cannot the State of New Jersey effectively control the acquisition by a utility company incorporated and operating entirely within New Jersey of securities of another utility company incorporated in and operating entirely within New Jersey? There would seem to be no argument on the point.*

Respondent, however, urges that to give effect to the last clause of Section 201(a) is to deprive Section 203 of its vitality, since petitioners' arguments, "if pressed to

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*Compare Section 3(a) of the Public Utility Holding Company Act of 1935, 49 Stat. 810, 15 U. S. C. A. Section 79c (Title I of the statute which included the Federal Power Act as Title II), providing for exemption from the principal provisions of the Act of holding company systems where a holding company and every subsidiary company thereof are predominantly intrastate in character or a holding company is predominantly a public utility company whose operations do not extend beyond a single state and states contiguous thereto. In Senate Report No. 621, 74th Cong. 1st Sess., p. 24, the Committee stated that companies of this class are "essentially not the kind of public utility holding companies at which the purposes of the legislation are directed" for the reason that "the whole system is intrastate."

their logical conclusion," would make petitioner Jersey Power completely immune from Commission regulation of stock acquisitions (Resp. Br. p. 27; p. 40 fn. 25). Even if respondent's conclusion were true, it would mean merely that the policy of Congress, in deliberately choosing to confer a much narrower jurisdiction on the Commission than the latter sought in the original draft of the Act, had brought about this result. Respondent's conclusion, however, is unwarranted. In the first place, even if the allegedly horrendous result of giving effect to Section 201 were to be that the Federal Power Commission would have no jurisdiction over any stock acquisition by petitioner New Jersey Power, Section 203 would still be applicable to the "public utilities" in at least 20 states which do not regulate such acquisitions. (See Pet. Br., p. 80). In the second place, if New Jersey Power were acquiring for cash the stock of a utility not operating in New Jersey (and this, petitioners submit, is the very type of acquisition with which Congress was concerned), the acquisition would not be subject to regulation by the New Jersey Board and would therefore be subject to the approval of the Commission.* This result would fully accord with the intent of Congress, which was that, by virtue of Section 203, the Commission "would have authority to keep the same kind of check upon the creation of spheres of influence among operating companies that the Securities and Exchange Commission has over holding companies under Title I" (Senate Report No. 621, 74th Cong., 1st Sess., 1935, p. 50). When the company whose stock is acquired owns and operates facilities which are in another state or which traverse state lines, then, and only then, is there a risk of the creation of the sort of

* N. J. S. A. 48:3-10 refers to acquisition of securities of a "public utility", as defined in N. J. S. A. 48:2-13, and such a utility would not fall within this definition.

"sphere of influence" which, because of the limited powers of the states, was of concern to Congress.

It might be urged that, despite state commission approval, a proposed acquisition of stock of one "public utility" by another "public utility" may give rise to a situation in which, by reason of the fact that the properties of one such utility are located in more than one state, or of both such utilities in different states, effective regulation of the acquisition, or of subsequent operations of the companies involved, may be difficult. From this it may be argued that in such a case the clear limitation prescribed in the last clause of Section 201(a) should be disregarded. Conceding, arguendo, that such might be the result, it is not our situation. Here both the acquiring company and the company whose stock is acquired are incorporated in the same state. Here the properties owned and operated by each company are located in the same state. Here the state in question, as was shown in our main brief and is further supported below, has complete regulatory powers, not merely over the acquisition but over the operations of both companies. Here a public utility commission of that state has exercised such powers. If this be not effective state regulation, what is?

C. The Nature of the Regulatory Powers of the New Jersey Board of Public Utility Commissioners, and the Exercise of That Power by the Board, are Such as to Exclude the Stock Transaction from the Jurisdiction of the Commission.

Respondent asserts that there is no conflict between the regulation of the stock transaction by the New Jersey Board of Public Utility Commissioners and that sought to be asserted by the Commission (Resp. Br., p. 44). Respondent supports this statement by claiming that, whereas

Section 203(a) forbids an unauthorized purchase, the New Jersey statute merely forbids an unauthorized sale (Resp. Br., p. 45). Such a position fails to give appropriate significance to the New Jersey statute (N. J. S. A. 48:3-10 (Pet. Br., App. A., p. A-30)), which provides, among other things, (a) that no public utility, as defined by New Jersey law, may make on its books any transfer of shares of its capital stock to any other public utility, and (b) that no public utility shall sell to another public utility any shares of its capital stock. It is true that that part of the statute paraphrased at (b) operates only upon the seller, but that part of the New Jersey statute paraphrased at (a) in effect operates upon both seller and purchaser, since it operates upon the corporation whose stock is the subject of the transaction. A transfer in violation of the statute is expressly made "void and of no effect" (*idem*). If the capital stock of a public utility cannot be transferred on the books of that company, no prospective purchaser will purchase. That this construction of the New Jersey statute accords with the views of the New Jersey Board, and possibly with those of the Commission itself, is indicated by the fact that in the booklet, *State Commission Jurisdiction and Regulation of Electric and Gas Utilities* (1941), in which data as to the scope of state regulation were collected by the Commission on the basis of information furnished by the state commissions, the New Jersey Board is shown (p. 19) to have the power to regulate "purchases of voting stock by other electric utilities."

Moreover, the assertions of respondent distort the nature of the order of the Board of Public Utility Commissioners (R. 5), in that the jurisdiction exercised by that Board in this case was founded not only upon N. J. S. A. 48:3-10, but also upon N. J. S. A. 48:3-7 (Pet. Br., App. A. p. A-25). This last section provides that no

public utility, as defined by New Jersey law, shall sell, lease or otherwise dispose of its property, without the approval of the Board. The transaction which was submitted to the Board for its approval, and which the Commission asserts was in violation of Section 203(a) of the Act, involved the acquisition by New Jersey Power from a non-utility of shares of capital stock of Jersey Central in exchange for certain property of New Jersey Power. Since the acquisition of the Jersey Central shares involved a disposition by New Jersey Power of its property, New Jersey Power itself was required to obtain the Board's approval of the transaction. The Board would not have given its approval to the disposition in the absence of its approval of the acquisition as well. In fact, it approved the "exchange" (R. 7). In doing so, it necessarily approved not only the transfer on the books of Jersey Central of the shares of capital stock involved, but also the acquisition of such stock by New Jersey Power.

D. The Position Urged by Respondent Rests Upon the Patently Unsound Premise that Jurisdiction of the Commission Over a Transaction is Dependent Upon Its Views of the Merits of Such Transaction.

Respondent suggests that "it may well be that if the question were properly presented to it, the Federal Power Commission would grant its approval of the acquisition," and that accordingly there is no conflict of jurisdiction (Resp. Br., p. 45). Petitioners submit that questions of jurisdiction are not to be resolved by speculation as to whether the tribunal whose jurisdiction is challenged will smile or frown upon a particular transaction.

Conclusion.

Respondent seeks to subject Jersey Central to federal regulation of its entire business because, in the course of generating millions of kilowatt hours for domestic consumption in the State of New Jersey, Jersey Central has generated a few wandering kilowatts (in an amount conceded by the Court below to be small) which apparently escaped to New York, as incidental or "slop-over" energy, over the lines of Public Service. On the facts of this case, it seems even questionable whether this involuntary ebb and flow of momentary electrical impulses over the emergency connection at the state line between Public Service and Staten Island could itself be dignified as "commerce".

Did Congress intend to subject a company such as Jersey Central to federal regulation as a public utility? If such be the effect of the law, then we have the startling result that Jersey Central, all of whose business is strictly intrastate and completely subject to regulation by the New Jersey Board, through no intent or act of its own, is held to be subject to the Commission's jurisdiction merely because Public Service has an emergency connection with a third company at a state line. If this be the law, then all the assurances given state authorities at the time of the passage of the Act were meaningless, and the resulting restrictive provisions inserted in the Act to protect state regulation of intrastate companies from possible conflict with federal regulation will prove abortive. If this be the law, no local intrastate electric company today can make an emergency connection or transmit *any* power to another electric utility, without running the risk of being transformed into an *interstate utility*, subject to the Act, *by transactions over which it has no control.*

Congress never contemplated that, merely because part of one company's network of transmission lines within a single state touches the state boundary, any other company touching that network at any point within the same state should be subject to the Act, if a few kilowatts of energy generated by it could be traced from that state to another state in a few isolated instances. Surely, such a construction is not within the avowed purpose of the Act, which, as Commissioner Seavey of the Federal Power Commission said, was to fill the gap which the *Attleboro* case left "in the present state regulation of electric utilities." What "gap" in regulation of Jersey Central is there, and what rates would the Commission be able to regulate, since Jersey Central's transactions are local transactions, since they all take place in New Jersey, and since its lines do not even run to the border of the state?

This Court has many times said that interstate commerce is not a technical legal concept, but a practical one fixed by practical lines and the established course of business. On the facts of this case, as to Jersey Central, there is no interstate commerce. There is no intent that energy move in interstate commerce. In the language of the cases "there must be the intent and the event". In this case the facts show affirmatively that there is neither.

Finally, whatever may be the status of Jersey Central, the specific transaction in question involves the purchase from a non-utility by a utility incorporated and operating entirely in the State of New Jersey of the stock of another such utility. It is a transaction carefully considered and approved by the New Jersey Board of Public Utility Commissioners, which has complete legal and effective control of both utility companies. One must search in vain to find legislative sanction or legislative policy for superimposing federal regulation upon the scrutiny already given this transaction under the laws of the State of New Jersey.

The judgments of the Court below should be reversed and set aside.

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Nos. 299 and 329.

IN THE

Supreme Court of the United States

OCTOBER TERM—1942.

No. 299.

JERSEY CENTRAL POWER & LIGHT COMPANY,
Petitioner.

v.

FEDERAL POWER COMMISSION,
Respondent.

No. 329.

NEW JERSEY POWER & LIGHT COMPANY,
Petitioner,

v.

FEDERAL POWER COMMISSION,
Respondent.

SUPPLEMENTAL MEMORANDUM FOR PETITIONERS.

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SUPPLEMENTAL MEMORANDUM FOR PETITIONERS.

At the argument of these cases the Court suggested that respondent might submit a memorandum on the reviewability by this Court of the Determination entered by the Commission (R. 936-9). Respondent has filed such a memorandum. Petitioners were granted leave to reply to or supplement any such memorandum.*

* On the question of reviewability petitioners in their main brief (p. 3) referred to the holding by the Court below that the Determination of the Commission was reviewable, and cited *Rochester Telephone Corporation* v. *United States*, 307 U. S. 125; *Federal Power Commission* v. *Pacific Power & Light Co.*, 307 U. S. 156; *Columbia Broadcasting System, Inc.* v. *United States*, 316 U. S. 407.

Petitioners regret that respondent has seen fit to take advantage of the Court's suggestion by including in its memorandum arguments obviously directed to the merits of these cases. In view of the full briefing of the cases prior to oral argument, and the specific nature of the Court's suggestion, we have assumed that further briefing on the merits would be not only uncalled for but unacceptable. Accordingly, we shall refrain from reply in kind, correcting, however, at an appropriate place (see pp. 13-14, *infra*), certain erroneous statements of fact, purportedly taken from the record, relied on by respondent.

I.

The Commission's Determination Is Reviewable by this Court upon Petition of Jersey Central.

A. Jersey Central was a Party to the Proceeding before the Commission.

The original order to show cause issued by the Commission was entitled "*In the Matter of: New Jersey Power & Light Company and Jersey Central Power & Light Company*" (R. 1). Subsequent orders, including the order instituting the investigation and directing that a hearing be held, were similarly entitled (R. 9). Jersey Central was served (R. 27), and the original date for hearing was postponed at its request (R. 12). The colloquy in which counsel and the Commission's Examiner joined at the beginning of the hearing (R. 27-29) indicates that Jersey Central considered itself a party to the proceeding from the outset. However, out of abundance of caution, a petition to intervene as a party was filed by Jersey Central (R. 15-18) and granted by the Commission's Examiner (R. 19). Such intervention is expressly permitted under

Section 308 of the Act (49 Stat. 858, 16 U. S. C. A. Sec. 825g), which provides:

> "* * * In any proceeding before it, the Commission, in accordance with such rules and regulations as it may prescribe, may *admit as a party* any interested State, State commission, municipality, or any representative of interested consumers or security holders, or any competitor of a party to such proceeding, or *any other person whose participation in the proceeding may be in the public interest.*"

The issue raised by Jersey Central, regardless of additional issues raised by New Jersey Power, was the status of Jersey Central. Jersey Central's petition to intervene concluded with the prayer that "the Commission make and enter a finding, determination and order that petitioner is not a public utility subject to the jurisdiction of the Federal Power Commission, under the terms of the Federal Power Act or otherwise" (R. 18). Jersey Central introduced oral testimony and exhibits, and exercised its right to cross-examine.

Accordingly, there can be no doubt that Jersey Central is a party to the present proceeding, and is bound by the Determination of the Commission. (See *Sunshine Coal Mining Co.* v. *Adkins*, 310 U. S. 381, 402-3). The Restatement of the Law of Judgments, promulgated by the American Law Institute, states:

> "A person may become a party or cease to be a party in a variety of ways. A person who intervenes as a contestant in a proceeding *is a party to the judgment* whether or not the court originally had jurisdiction over him, provided that before the judgment is finally entered he appears as a party." (Section 79, Comment f.)

B. The Nature of the Commission's Determination as it Affects Jersey Central.

Plainly, the name given by the Commission to its action ("Determination by the Commission", R. 936-9) is of no significance if in fact the result is to impose legal detriment upon either petitioner, so that it is a "party to a proceeding under this Act aggrieved by an order issued by the Commission" (49 Stat. 860, Sec. 313, 16 U. S. C. A., Sec. 825*l*).

> "The particular label placed upon it by the Commission is not necessarily conclusive, for it is the substance of what the Commission has purported to do and has done which is decisive."
>
> *Columbia Broadcasting System, Inc.* v. *United States*, 316 U. S. 407, 416.

The Determination of the Commission specifically found that "Jersey Central Power & Light Company is a 'public utility' within the meaning of the Federal Power Act" (R. 940). The order of the Commission denying the petitions for rehearing makes clear the separateness of the issues raised by each of the petitioners and states that:

> "* * * the Commission determined among other things that Jersey Central Power & Light Company was a 'public utility' as defined by the Federal Power Act, *and* that New Jersey Power & Light Company had violated the provisions of Section 203(a) of said Act. * * *" (R. 963). (Italics added.)

There was thus an adversary, quasi-judicial proceeding in which Jersey Central, given adequate notice and permitted to intervene as a party, exercised its opportunity to be heard throughout and specifically litigated the question of its status.

C. The Reviewability of the Commission's Determination That Jersey Central is a "Public Utility."

In *Rochester Telephone Corporation* v. *United States*, 307 U. S. 125, this Court stated, with respect to its jurisdiction to review an order of an administrative body: (1) that the Court must have before it a "case" or "controversy" under Article III of the Constitution; (2) that the specific terms of the statute granting review of the orders of such administrative body must be complied with; and (3) that under the "primary jurisdiction doctrine" the applicant for review must theretofore have exhausted the administrative process.

In the present cases the statutory prerequisites for review (49 Stat. 860, Sec. 313, 16 U. S. C. A. Sec. 825*l*) have been complied with. Applications for rehearing were filed and denied by the Commission (R. 963), and timely petitions for review were filed in the Circuit Court of Appeals (R. 1094, 1112). Petitions for writs of certiorari, having been duly filed, were granted on October 12, 1942. Furthermore, in the present cases the "primary jurisdiction doctrine" has been complied with. All issues of law and fact were presented to the Commission in the first instance, extended hearings were held, and the Commission made its determination of the issues presented.

In the *Rochester* case the Court adverted to the fact that even where an order of an administrative body is reviewable, the "range of issues open to review" is limited to "questions affecting constitutional power, statutory authority and the basic prerequisites of proof" (p. 140). The issues raised in these cases meet such requirements. The position of petitioner, Jersey Central, is that, after full hearing by the Commission, there is no substantial evidence, and indeed no evidence, in the record to support the conclusion that Jersey Central is a "public utility", as defined in the Act,

and that Jersey Central is in fact excluded from the definition of "public utility." New Jersey Power joins in this position and takes the further position that the transaction of stock acquisition was, in any event, by the terms of the Act specifically excluded from the jurisdiction of the Commission. No exercise of administrative discretion is involved. The questions raised are questions directly affecting "statutory authority and the basic prerequisites of proof."

(1) A Determination of Status by the Commission which Subjects Jersey Central to Legal Obligations is a "Case" or "Controversy."

In the *Rochester* case the order which was held to be reviewable was an order of the Federal Communications Commission determining that Rochester Telephone Corporation had the status of a "common carrier" under the Federal Communications Act. The order was reviewable since it was not a "mere abstract declaration of such status" but "necessarily and immediately carried direction of obedience to previously formulated mandatory orders addressed generally to all carriers amenable to the Commission's authority" (p. 144). The order thus, without more, had the effect of compelling or forbidding conduct on the part of the corporation. Similarly, in *Columbia Broadcasting System, Inc.* v. *United States*, 316 U. S. 407, a "regulation" promulgated by the Federal Communications Commission with respect to persons subject generally to its jurisdiction was held reviewable in view of the threat to the petitioner in that case of irreparable injury alleged to flow from such "regulation". Although a minority of the Court deemed such "regulation" not to be reviewable, it recognized that "If an administrative determination of status has the effect of subjecting a person to legal obligations, whether embodied in statute or previously formulated administrative

commands, or otherwise affecting legal rights, such a determination possesses the elements of a reviewable order" (p. 435).

(2) Jersey Central was Subjected to Legal Obligations as a Result of the Determination of its Status as a "Public Utility" by the Commission.

The Determination of the Commission was an adjudication with respect to the status of Jersey Central. Such adjudication was reviewable if it necessarily carried direction of obedience to mandatory administrative or statutory requirements. Such legal consequences did, in fact, immediately follow the Commission's Determination, since the Commission had issued the same type of "previously formulated mandatory orders addressed generally to all [public utilities] amenable to the Commission's authority" as had been issued by the Federal Communications Commission in the *Rochester* case.

Some of the Federal Power Commission's orders are collated in respondent's memorandum (page 2, footnote 2). The scope of such orders is by no means inconsiderable. They prescribe an entire system of accounts (Order No. 42), including detailed regulations regarding plant acquisition adjustments, original cost and depreciation accruals; they provide for the filing with the Commission of detailed reports and questionnaires regarding ownership and transfers of securities (Order No. 46-A, now rescinded); they provide for the filing of rate schedules and monthly reports (Order No. 44, Rule 205).* In addi-

* Compare the "previously formulated mandatory orders" in the *Rochester* case: "* * * These orders required all telephone carriers subject to the Act to file schedules of their charges, copies of contracts with other telephone carriers, information concerning their corporate and service history, their relations with affiliates, their use of franks and passes." (*Rochester* case, p. 127)

tion, the Act itself immediately operated to affect Jersey Central. Thus, Jersey Central's rates for alleged transmission of energy in interstate commerce immediately became subject to the mandatory provisions of Section 205(a) and (b).

All these requirements carried with them the sanctions provided in the Act, viz.: civil (Section 314) or criminal (Section 316) action, or forfeiture of $500 per day (Section 315).

The instant Determination was not a "mere abstract declaration of status." Nor was it a "stage in an incomplete process of administrative adjudication" (*Rochester* case, p. 143). It is in sharp contrast to the order of the Commission in *Canadian River Gas Company* v. *Federal Power Commission*, 110 F. (2d) 350, cert. den., 311 U. S. 693. There the Commission sent a questionnaire to a company requesting certain information bearing on its status under the Natural Gas Act. Under protest the company answered the questionnaire and supplied the information. The Commission then issued an order which (1) recited that the company was a "natural gas company", and (2) instituted an investigation to determine the reasonableness of the company's rates. Thereupon, *before any hearings were held and before any further facts were heard*, the company petitioned the United States Circuit Court of Appeals for review of the order under Section 313(b) of the Act. The Court properly dismissed the petition on the ground that the order was "in no proper sense a definitive order" and was "a mere step in procedure."

II.

The Commission's Determination is Reviewable by this Court Upon Petition of New Jersey Power.

It appeared to petitioners at oral argument that no question was raised as to the reviewability of the Commission's Determination so far as New Jersey Power is concerned. However, in order that there may be no doubt on this point, New Jersey Power desires to point out that:

(1) The terms of the statute granting review have been complied with;

(2) The "primary jurisdiction doctrine" has been satisfied; and

(3) The Court has before it a "case" or "controversy."

The first two matters have been adequately discussed at an earlier point in this memorandum (*supra*, p. 5). We shall, therefore, consider merely whether, so far as New Jersey Power is concerned, the order of the Commission presents a "case" or "controversy."

A. The Nature of the Commission's Determination.

The Determination of the Commission finds that New Jersey Power "acquired such securities in violation of the express provisions of Section 203(a) of the Federal Power Act." (R. 940) The threat to New Jersey Power of injury as a result of such determination clearly presents a "case" or "controversy".

In *Aetna Life Insurance Company* v. *Haworth*, 300 U. S. the Court, in considering the Federal Declaratory Judgment Act, said: (pp. 240-241)

> "The controversy must be definite and concrete, touching the legal relations of parties having adverse legal interests * * *. Where there is such a concrete case * * * the judicial function may be appropriately exercised although the adjudication of the rights of the litigants may not require the award of process or the payment of damages."

Similarly, in *Columbia Broadcasting System, Inc. v. United States*, 316 U. S. 407, the Court held that a "regulation" promulgated by the Federal Communications Commission with respect to all broadcasting licensees was reviewable under the Urgent Deficiencies Act, upon the petition of a so-called chain broadcasting company, because of the adverse effect which such "regulation", although not directed to such companies specifically, had upon the contractual relations of such companies with the broadcasting licensees. The Court said (p. 417):

> "The regulations are not any the less reviewable because their promulgation did not operate of their own force to deny or cancel a license. It is enough that failure to comply with them penalizes licensees, and appellant, with whom they contract. If an administrative order has that effect it is reviewable and it does not cease to be so merely because it is not certain whether the Commission will institute proceedings to enforce the penalty incurred under its regulations for noncompliance."

A fortiori, the instant Determination presents a "case" or "controversy", in view of the threat to New Jersey Power of injury flowing from it, particularly since it is one of the two persons to whom the Determination was specifically directed.

B. Injury Resulting to New Jersey Power from the Commission's Determination.

The determination by the Commission that New Jersey Power, by its stock acquisition, had violated the Federal Power Act adversely affected New Jersey Power in at least the following respects:

(a) Under Section 316(a) of the Act any person who wilfully and knowingly "suffers to be done any act, matter, or thing in this Act prohibited or declared to be unlawful or who wilfully and knowingly *omits or fails to do any act, matter or thing in this Act required to be done, or wilfully and knowingly causes or suffers such omission or failure*" [italics supplied] commits a penal offense subject to a fine of not more than $5,000 or imprisonment for not more than two years or both. Consequently, if review of the Commission's Determination had not been sought, New Jersey Power or its officers would have run the risk of criminal prosecution for omitting or failing to take action to rectify the supposed illegality of the stock acquisition. Clearly, "disregard of the Commission's adverse action entails threat of oppressive penalties" (*Rochester* case, p. 132).

(b) The Determination of the Commission immediately cast a cloud upon New Jersey Power's title to its substantial investment ($4,312,308, R. 6) in Jersey Central stock. If such acquisition violated Section 203(a) of the Act, it is not clear whether the title of New Jersey Power is "void" or "voidable" (See *Oklahoma Gas and Electric Company*, Federal Power Commission Opinion No. 38, July 6, 1939); but, in any event, the right of New Jersey Power freely to dispose of its Jersey Central stock has been impaired.

By virtue of the Commission's Determination, New Jersey Power was adversely affected even more directly

and substantially than was the party accorded review of the order of the Commission in *Federal Power Commission* v. *Pacific Power and Light Company*, 307 U. S. 156. In that case application was made for authorization to merge the facilities of two public utilities under Section 203(a) of the Act, and such authorization was denied. The order thus had the effect of denying prospectively the exercise of a privilege deemed available under the Act. In the present case, New Jersey Power believed that it had the privilege of acquiring the stock of Jersey Central without authorization by the Commission, and exercised such privilege. The Determination of the Commission not only denied that such privilege existed, but affirmatively held that New Jersey Power had violated the Act, thereby subjecting it to the detriment and risk of penalties referred to above.

III.

Correction of Statements of Fact, Purportedly Based on the Record, Contained in Respondent's Memorandum.

In its memorandum filed with the Court on January 15, 1943, respondent has argued, as do petitioners, that the order in question is reviewable, and that the cases do not involve merely the exercise of administrative discretion. However, under the guise of comparing the Federal Communications Act with the Federal Power Act—and thus showing the applicability of the Court's decision in the *Rochester* case—respondent abruptly introduces arguments directed to the merits rather than to the question of reviewability (Respondent's Memorandum, pp. 3-5). For reasons indicated at the beginning of this memorandum, we are not replying to the efforts of respondent to answer

certain questions put by the Court at oral argument, or to the unsupported or erroneous arguments not addressed to the reviewability of the Determination (Respondent's Memorandum, pp. 3-5, particularly footnotes 7, 8 and 9). However, we find it necessary to correct certain statements of fact which are so plainly contrary to the record that we must point out their falsity lest we be deemed to acquiesce in them.

(1) On page 3, footnote 6, respondent states that "• • • certainly no question of *de minimis* need be decided in this case where the amount of energy involved is substantially over 93% (Exh. 16A, R. 1004) of an amount which would supply 4,260 average residential consumers for the same period of time (R. 625)."

The record references by respondent have no relation whatever to each other, the figure of "4260" being indeed the result of a purely hypothetical calculation (R. 623). The "93%" referred to by respondent is the "Percent of Total Power Supplied to Mechanic St." (i.e., to Public Service) by Jersey Central at *two moments of time*, both on December 15, 1937 (see Comm. Exh. No. 16A, R. 1004). At the instant of one of those readings (8:30 P. M.) there was a flow to Staten Island of 500 *kilowatts* of slop-over energy from Mechanic Street; at the instant of the other reading (9:00 P. M.) there was a flow to Staten Island of 1,000 *kilowatts* of such energy (Comm. Exh. 13, R. 1002). In both instances—as on all 24 instances shown on Exhibit 16A—the *duration* of flow is not shown, and therefore the kilowatt hours transferred are unknown. These two moments were selected from the 25,500 already referred to many times. The amount of energy "which would supply 4,260 average residential customers" is the 3,093,400 kilowatt *hours* of energy which was stated in the

record to be the total amount of energy received by Staten Island from Public Service *during the entire year 1937* (R. 623, 625, Comm. Exh. No. 6, R. 978). This figure of 3,093,400 kilowatt hours appears in the record only as a *total*, with no indication whatever as to what portion of such energy was generated by Jersey Central.

In using the figure of 93% appearing on Exhibit 16A—the key exhibit intended by the Commission to show that some energy generated by Jersey Central reached Staten Island—respondent can have no purpose other than to lead this Court to believe that at least 93% of *all* the energy received by Staten Island from Public Service in the year 1937 was generated by Jersey Central. As contained in respondent's memorandum, the statement is made as though it were a fact in the record; obviously this is not true. As a deduction drawn by counsel for respondent, the statement is fantastic, based as it is on a sampling at two (or at most 12) moments of time during the entire year!

Respectfully submitted,

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Nos. 299 and 329

In the Supreme Court of the United States

OCTOBER TERM, 1942

JERSEY CENTRAL POWER & LIGHT COMPANY,
PETITIONER

v.

FEDERAL POWER COMMISSION

NEW JERSEY POWER & LIGHT COMPANY,
PETITIONER

v.

FEDERAL POWER COMMISSION

ON PETITIONS FOR WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT.

BRIEF FOR THE RESPONDENT IN OPPOSITION

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JERSEY CENTRAL POWER & LIGHT COMPANY,
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ON PETITIONS FOR WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

BRIEF FOR THE RESPONDENT IN OPPOSITION[1]

The opinion of the United States Circuit Court of Appeals for the Third Circuit (R. 1113–1134)

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[1] This brief for respondent Federal Power Commission is in opposition to the petitions for writs of certiorari filed in both these cases.

OPINIONS BELOW

is reported in 129 F. (2d) 183. The Determination by the Federal Power Commission is set forth in the record at pp. 936–940.

JURISDICTION

The judgments of the United States Circuit Court of Appeals for the Third Circuit were entered on May 25, 1942 (R. 1135–1136). The petition for a writ of certiorari was filed in No. 299 on August 13, 1942, and in No. 329 on August 22, 1942. The jurisdiction of this Court is invoked under Section 240 (a) of the Judicial Code, as amended by the Act of February 13, 1925.

QUESTIONS PRESENTED

Petitioner, New Jersey Power & Light Company is a "public utility" within the meaning of Section 201 (e) of the Federal Power Act. Petitioner Jersey Central Power & Light Company owns and operates transmission facilities in New Jersey which extend to and interconnect with transmission facilities of the Public Service Electric and Gas Company. The transmission facilities of the Public Service Electric and Gas Company in turn extend to the mid-channel of a navigable body of water separating the State of New Jersey from Staten Island, New York, and there interconnect with transmission facilities of Staten Island Edison Corporation which extend to Staten

Island, New York. Jersey Central Power & Light Company sells electric energy to Public Service Electric and Gas Company, which sells electric energy across the state line to Staten Island Edison Corporation. Electric energy generated at the plant of Jersey Central Power & Light Company is transmitted through these interconnected facilities and is consumed in the State of New York. The questions are:

1. Whether petitioner Jersey Central Power & Light Company owns or operates facilities for the transmission of electric energy in interstate commerce within the meaning of Section 201 (b) of the Federal Power Act and is therefore a "public utility" as defined in Section 201 (e) of the Act.

2. If so, whether the common stock of Jersey Central Power & Light Company may be acquired by petitioner New Jersey Power & Light Company, a "public utility," without the authorization of the Federal Power Comission as required by Section 203 (a) of the Act, because such acquisition had been approved by a state regulatory commission.

STATUTE INVOLVED

The relevant portions of the Federal Power Act of 1935 are set forth in the Appendix, *infra*, pp. 20–23.

STATEMENT

On June 7, 1938, the Federal Power Commission issued an order (R. 1-2) directing petitioner

New Jersey Power & Light Company (hereafter called Jersey Power) to submit in writing under oath detailed information concerning its acquisition of 341,350 shares of common stock of petitioner Jersey Central Power & Light Company (hereafter called Jersey Central) in apparent violation of Section 203 (a) of the Federal Power Act and to show cause, if any, why the Commission should not proceed to enforce the provisions of the Federal Power Act. In its answer (R. 3–8) Jersey Power admitted the acquisition of the stock, but alleged that the stock was acquired with the approval of the Board of Public Utility Commissioners of the State of New Jersey, and denied the applicability of Section 203 (a) on the ground that Jersey Central was not a "public utility" within the meaning of the Act since it did not own or operate any facilities for the transmission or sale of electric energy in interstate commerce. On July 5, 1938, the Commission issued an order instituting an investigation and setting a date for a hearing (R. 9–11). On September 27, 1938, Jersey Central was permitted to intervene (R. 19). Following a hearing, the Commission made findings of fact and concluded (R. 936–940) that Jersey Central was a "public utility" within the meaning of the Federal Power Act, that the acquisition of the stock was the "acquisition by a public utility of the securities of another public utility within the meaning of Section 203 (a) of the Federal Power Act";

and that Jersey Power had acquired such securities in violation of Section 203 (a) of the Act since it had not obtained prior authorization from the Commission (R. 940). Petitions for rehearing (R. 941–962) were denied on September 15, 1939 (R. 963–964). On petitions to the court below for review (R. 1094–1112), the determination of the Commission was affirmed on May 25, 1942 (R. 1113–1134).

The facts relating to the enterprises in controversy may be summarized as follows:

Jersey Power and Jersey Central own and operate electric utility systems in the State of New Jersey (R. 1114). Jersey Power is admittedly a "public utility" within the meaning of Section 201 (e) of the Federal Power Act (R. 3, 940, 1114.)[2] Jersey Central owns and operates transmission facilities extending from its substation adjacent to its generating plant in South Amboy, New Jersey, to the south bank of the Raritan River where such transmission facilities are joined to the transmission facilities of Public

[2] Jersey Central, Jersey Power, and Public Service Electric and Gas Company serve two-thirds of the State of New Jersey, and operate in synchronism or parallel (R. 966). In addition, these three utilities are interconnected and operate in synchronism with numerous other electric utilities in the States of New York, Pennsylvania, Delaware, and Maryland (R. 86). Electric utilities, when interconnected, must operate in parallel or synchronism which means that the electrical ties between each and every generator in such an interconnected system is as definite and real as though they were mechanically interconnected by shafting and gears (R. 86–87).

Service Electric and Gas Company (hereafter called Public Service) (R. 937–938). The transmission facilities of Public Service, in turn, extend from the south bank of the Raritan River to its Mechanic Street substation in Perth Amboy, New Jersey (R. 938). Public Service also owns transmission facilities extending from its Mechanic Street substation to the midchannel of Kill van Kull, a navigable body of water separating the State of New Jersey from Staten Island, New York. At midchannel, Public Service's transmission facilities are interconnected with the transmission facilities of the Staten Island Edison Corporation (hereafter called Staten Island) whose facilities extend from such point of connection to its Atlantic substation on Staten Island, New York (R. 938). The bus bar at Public Service's Mechanic Street substation serves as the common point of connection for the three utilities. The transmission facilities between Jersey Central and Public Service, on the one hand, and the transmission facilities from Public service to Staten Island are attached to this same bus bar (R. 938–939).[1]

The Commission found that the facilities of Jersey Central and Public Service are utilized in the daily transmission of electric energy in both

[1] A bus conductor, or a group of conductors, is a switchgear assembly which serves as a common connection for three or more circuits. *American Standard Definitions of Electrical Terms*, published by American Institute of Electrical Engineers, p. 97.

directions between the Mechanic Street substation of Public Service and Jersey Central at South Amboy, and are connected directly and at all times with the common bus bar at the Mechanic Street substation (R. 938–939); and that normally electric energy is transmitted daily in both directions between Public Service's Mechanic Street substation in New Jersey and Staten Island's Atlantic substation in New York (R. 938–939). The Commission found further that the transmission facilities described provide a direct and interconnected line for the transmission of electric energy between Jersey Central's substation at South Amboy, New Jersey, and Staten Island's Atlantic substation in New York and that "on numerous occasions during certain days and almost daily throughout 1936, 1937, and to September 1938" electric energy was transmitted over these facilities between such points (R. 939).

The relationship between Jersey Central and Public Service is governed by a written and an oral contract. The written contract, designated as "Interconnection Agreement," provides for the interchange of electric energy and the maintenance of the facilities between South Amboy and the Mechanic Street substation (R. 1939–1050). Although this contract provides primarily for the transfer of emergency power to be supplied in the "event of breakdown of equipment, unusual load demands, or other unusual or abnormal conditions in the system of either party * * *" it

also provides that the facilities may be used, by mutual agreement of the parties, for purposes other than those specifically provided in the contract (R. 1042). Accordingly, the facilities are used extensively, pursuant to oral arrangement, for the transfer of electric energy designated as "economy-flow" energy.[4] During the period January 1, 1937, to March 31, 1938, more than 65,000,000 kilowatt-hours of electric energy were sold and transmitted under this oral contract by Jersey Central to Public Service (R. 1019).[5] The actual interchange of electric energy, expressed in kilowatt-hours (KWH), for the years 1934–1937 was (R. 978):[6]

	1934	1935	1936	1937
From Jersey Central to Public Service	56,345,000	77,333,196	70,694,825	55,421,000
From Public Service to Jersey Central	1,554,020	969,776	1,240,545	1,631,160

[4] All energy is the same; the name "economy flow" merely denotes attendant circumstances of supply and price (R. 238–240, 259, 263–264, 328–329).

[5] Public Service relies upon Jersey Central energy in its day to day operations (R. 99, 1019–1035). The manner in which these interconnected utilities operate and are interdependent upon one another in their joint or pool operations is established by the 1937 annual report of Public Service to the Federal Power Commission. This report shows that the 1987 annual system peak load of Public Service amounting to 551,900 kilowatts was supplied as follows: 471,000 kilowatts by Public Service Power plants, 32,000 kilowatts by Philadelphia Electric, 33,000 kilowatts by Pennsylvania Power and Light, 9,000 kilowatts by Jersey Central from its South Amboy plant, 2,000 kilowatts by Staten Island, and 5,000 kilowatts by other utilities (R. 97–98).

[6] Public Service paid Jersey Central for the electric energy which it received during 1937 the gross sum of $145,789.00 (R. 333).

Electric energy was, in turn, interchanged between Staten Island and Public Service pursuant to contract (R. 1068–1069). The interconnection and exchange between Public Service and Staten Island was vital to Staten Island (R. 397–401, 401–402, 407–409) and the proximity of the Jersey Central interconnection made the Staten Island interconnection with Public Service more dependable (R. 402).[7] Although the interchange of energy between Public Service and Staten Island nearly balanced each year, the energy "in" and the energy "out" of Staten Island are separate transactions (R. 362, 418, 429) and the energy is paid for partly in kind (R. 1013–1017) and partly in cash (R. 1074). For the years 1934–1937 the interchange expressed in kilowatt-hours was (R. 978):

	1934	1935	1936	1937
From Public Service to Staten Island	3,826,100	3,453,500	3,266,600	3,090,400
From Staten Island to Public Service	3,033,800	3,147,300	3,111,400	3,119,200

Log sheets are maintained at Public Service's Mechanic Street substation showing the interchange of power over the circuits to Jersey Central and to Staten Island. Readings of all meters at the Mechanic Street substation are taken every half-hour from 6 A. M. until midnight and hourly from midnight to 6 A. M., and are regularly

[7] The importance of an interconnection is not measured by the extent of use; dependability under all circumstances is the critical factor (R. 314–315).

recorded on the station log sheets (R. 1118–1119). Commission experts, on the basis of an analysis of 184 representative readings for various hours of the day and various times of the year, determined that simultaneously with the inflow of energy from petitioner Jersey Central to the Mechanic Street substation there was an outflow of energy to Staten Island (Comm'n's Exhs. 11, 12, R. 983–1001). These readings represent energy transactions during 131 days between January 1, 1937, and September 6, 1938 (R. 992–1001, 1119). They show that the total power transmitted by Jersey Central to Public Service's Mechanic Street substation exceeded the total local requirements of Public Service, as registered at the substation; accordingly the excess, originating from petitioner Jersey Central, was shown necessarily to have been transmitted to Staten Island. Of the 184 readings, 24, picked at random (R. 123), were further analyzed. This analysis established the percentage of energy supplied to Staten Island which originated on the Jersey Central system (Comm'n's Exh. 16 A, R. 1004) and showed that electricity generated by Jersey Central was flowing out over all bus-bar connections at Mechanic Street substation except the connection with Jersey Central from which current was flowing into the substation (R. 118, 120–122, 124–125). As a consequence the Commission found that there was no electricity coming into the bus-bar on these oc-

casions except from Jersey Central (R. 1114).[8] Detailed study of the 24 readings demonstrated that at practically all times shown by the 184 readings Jersey Central was supplying all the energy transmitted from Public Service to Staten Island and that if there was any instance when Jersey Central was not supplying all such energy to Staten Island it was at least supplying a substantial part of such energy (R. 108, 112, 122, 125–126, 992–1001).

Similarly Commission experts studied various readings at Mechanic Street substation on 38 different days between January 13, 1937, and August 12, 1938 (R. 1005–1011). These studies demonstrated that the interconnected pool operations of Staten Island, Public Service and Jersey Central resulted at times in the transmission of electric energy generated by Staten Island in the State of New York through Public Service to Jersey Central where such energy was consumed in the State of New Jersey (R. 130–133). This transmission of electric energy in the reverse direction followed the same pathway as Jersey Central generated energy transmitted to Staten Island (R. 133).

[8] As to five periods examined it appeared that the flow of electricity to Public Service on the bus-bar from Jersey Central exceeded the requirements of the Central Division of Public Service, the load required to maintain Staten Island and all local requirements of the substation (R. 1119).

ARGUMENT

The court below held that petitioner Jersey Central owned and operated facilities for the transmission of electric energy in interstate commerce, that consequently Jersey Central was a "public utility" within the meaning of Section 201 (e) of the Federal Power Act (R. 1133–1134) and that the acquisition of the Jersey Central stock by another "public utility" (Jersey Power) was subject to the jurisdiction of the Federal Power Commission under Section 203 (a) of the Act even though such acquisition had been approved by the Board of Public Utility Commissioners of the State of New Jersey (R. 1134). This decision is correct and presents no conflict with other decisions.

1. Section 203 (a) of the Act prohibits a public utility's acquisition of any security of any other public utility without prior authorization of the Commission. Section 201 (e) defines the term "public utility" as "any person who owns or operates facilities subject to the jurisdiction of the Commission * * *." By Section 201 (b), the provisions of the Act are made applicable to the transmission and sale at wholesale of electric energy in interstate commerce and, in addition, the Commission is vested with "jurisdiction over all facilities for such transmission or sale of electric energy * * *." And Section 201 (c) provides that "electric energy shall be held to be transmitted in interstate commerce if transmitted

from a State and consumed at any point outside thereof."

The Commission found (R. 939–940) that petitioner Jersey Central owns and operates "transmission facilties utilized for the transmission of electric energy in interstate commerce." This finding is plainly supported by the evidence which we have summarized in the Statement (*supra*, pp. 5–11): That evidence establishes that Jersey Central is an integral link for the transmission of energy which finds its way directly and uninterruptedly to Staten Island, New York, through the interconnected facilities of Public Service.* The finding, thus clearly supported and affirmed by the court below (R. 1133–1134) is conclusive. See Section 313 (b); *General Pictures Co.* v. *Western Electric Co.*, 304 U. S. 175, 178; *United States* v. *Chemical Foundation*, 272 U. S. 1, 14; *Virginian Ry.* v.

* Petitioners' contention (Pet. No. 299, pp. 30–32; Pet. No. 329, pp. 21–27) that Jersey Central does not own or operate facilities for the transmission of electric energy across State lines because it sells directly to Public Service within the State of New Jersey is without substance. Cf. *Electric Bond & Share Co.* v. *Securities and Exchange Commission*, 303 U. S. 419, 440; *United States* v. *Rock Royal Co-operative*, 307 U. S. 533, 568–569; *Peoples Natural Gas Co.* v. *Federal Power Commission*, 127 F. (2d) 153, 157–158, certiorari denied, No. 1234, last Term, June 1, 1942. It is conceded by petitioners (Pet. No. 299, pp. 5, 6; Pet. No. 329, pp. 7, 9–10) that the energy which Jersey Central generates and transmits through Public Service in New Jersey is consumed in the State of New York (see Section 201 (c)). And it is of course immaterial where title to the energy passes. *Public Utilities Commission* v. *Attleboro Co.*, 273 U. S. 83; *Missouri* v. *Kansas Gas Co.*, 265 U. S. 298.

Federation, 300 U. S. 515, 542. The provision of Section 201 (b) that the Commission "shall not have jurisdiction, except as specifically provided in this Part and the Part next following, over facilities used * * * only for the transmission of electric energy in intrastate commerce" does not bring Jersey Central outside the broad definition of the term "public utility" set forth, for the transmission facilities here involved are not used "only" for transmission in intrastate commerce. Section 201 (b) specifically provides that the Commission shall have jurisdiction over *all* facilities for the transmission of electric energy in interstate commerce and it is not necessary that such facilities be used *exclusively* for such interstate transmission. And while the Commission under Section 201 (b) may not have jurisdiction over the generation, distribution, and exclusively intrastate transmission facilities of a "public utility" except as specifically provided in the Act, any person who owns or operates facilities for interstate transmission of electric energy is, under Section 201 (e), a "public utility" subject to the jurisdiction of the Commission.[10] Petitioners' contention to the contrary

[10] Petitioners' attempted distinction (Pet. No. 299, p. 5; Pet. No. 329, pp. 8–9) between "economy-flow," "emergency," and "slop-over" energy is, as the court below found (R. 1116), immaterial, since the Act deals with "electric energy." Moreover, the transmission of electric energy is instantaneous and Jersey Central's ability to generate can only exist coincident with Staten Island's consumption, to the extent that Jersey Central energy is transmitted to and consumed by the

(Pet. No. 329, p. 19; Pet. No. 299, pp. 21–22), that the admixture of intrastate transmission with interstate transmission over the same facilities deprives the Commission of jurisdiction over such facilities and over the interstate transmission for which they are used, would emasculate the Act and is clearly erroneous. Cf. *United States* v. *American Trucking Associations*, 310 U. S. 534, 544; *United States* v. *Dickerson*, 310 U. S. 554, 561–562.

2. Petitioners contend that even if Jersey Central is a public utility within the meaning of Section 201 (e), the Commission's approval of the stock acquisition by Jersey Power is not required under Section 203 (a) because the acquisition had been approved by the Board of Public Utility Commissioners of the State of New Jersey. Petitioners assert (Pet. No. 299, p. 34; Pet. No. 329, pp. 30–34) that "the existence of State regulation necessarily excludes federal regulation" under the

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latter (R. 311). Thus in the transmission of electric energy, unlike the transportation of freight by railroads and ships, the destination of the energy is necessarily fixed at the instant of production. The alleged absence of knowledge or concern on the part of Jersey Central (Pet. No. 329, pp. 10, 25) is immaterial because "Once the circuit between the Jersey Central generating plant and the Staten Island Company was closed, inevitably electricity flowed from Jersey Central to the Staten Island Company. That result was not only not unexpected, it was unavoidable" (R. 1133). Moreover, the assertion that the interstate movement of Jersey Central energy is a mere accident (Pet. No. 329, pp. 8–9) is erroneous, since it is a vital part of the carefully planned interstate pool (R. 99; see *supra*, pp. 5, 8).

Act because Section 201 (a) provides that federal regulation is "to extend only to those matters which are not subject to regulation by the States." The contention is without merit. Section 201 (a) is, as the court below recognized (R. 1127), merely a declaration of policy (S. Rep. No. 621, 74th Cong., 1st Sess., p. 19; H. Rep. No. 1318, 74th Cong., 1st Sess., p. 26; H. Rep. No. 1903, 74th Cong., 1st Sess., p. 74), and its provisions are not "enactments of law, but legislative averments by way of inducement to the enactment that follows." *Carter* v. *Carter Coal Company*, 298 U. S. 238, 280; *National Labor Relations Board* v. *Jones & Laughlin Steel Corporation*, 301 U. S. 1, 30. As the Act clearly shows, Congress did not intend this limitation to be read into the other sections of the Act, since any specific limitation on the Commission's jurisdiction, where intended, was "inserted in each section to prevent the expansion of Federal authority over State matters." S. Rep. No. 621, 74th Cong., 1st Sess., p. 18. And where Congress intended to limit federal regulation to situations where state regulation was absent, it expressed its intent specifically in the appropriate provision. For example, the provisions of Sections 204 (a)–(e) requiring Commission approval of the issuance of securities and the assumption of liabilities by public utilities are specifically limited by Section 204 (f)

which provides that the "provisions of this section shall not extend to a public utility organized and operating in a state under the laws of which its security issues are regulated by a state commission." If, as petitioners contend, the declaration of policy in Section 201 (a) precludes federal regulation of any matters subject to state regulation, the provision of Section 204 (f) is meaningless and a nullity. Cf. *Platt* v. *Union Pacific Railroad Company*, 99 U. S. 48, 58–59. And plainly the Act contemplates that, in respect of certain matters such as the stock acquisition here involved, federal and state regulation may continue side by side, and that federal regulation is not withdrawn in every instance where state regulation exists."

Nor does the requirement of approval by the Federal Power Commission of the acquisition of securities produce a "conflict," as petitioners contend, between state and federal regulation in these circumstances. The Commission is not authorized by Section 203 (a) to require any affirmative action by order in respect of security acquisition. Its approval is permissive rather than manda-

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" Thus, the Act provides for notice to state commissions (Sections 202 (b), 203 (a), 207, 302 (b)), for joint hearings with state commissions (Sec. 209 (a)), and for conferences with state commissions regarding "public utilities subject to the jurisdiction of such State commissions and of the Commission" (Section 209 (b)).

tory.[12] In certain sections of the Act the Commission is authorized to issue mandatory affirmative orders which might create possible conflicts with the requirements prescribed under state authority. Where Congress intended to preserve such state authority in those instances, it expressly did so. Thus, in Section 301 (a), which authorizes the Commission to prescribe a system of accounts for all "public utilities" and to "determine by order the accounts in which particular outlays and receipts shall be entered, charged, or credited," it is specifically provided that nothing in the Act shall relieve any public utility from keeping any accounts which it "may be required to keep by or under authority of the laws of any state." *Cf. Northern States Power Company* v. *Federal Power Commission*, 118 F. (2d) 141, 144 (C. C. A. 7); *Northwestern Electric Company* v. *Federal Power Commission*, 125 F. (2d) 882, 885 (C. C. A. 9). No such provision is necessary in the case of stock acquisition under Section 203 (a).

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[12] The Regulations of the Commission require that a petition under Section 203 (a) show whether or not an application is required to be filed with any other State or Federal authority, and, if so, the filing of a copy of the application and order relating thereto. Federal Power Commission, Rules of Practice and Regulations, Part 33, Sec. 33.2, Par. O; Part 33, Sec. 33.2, Exh. K.

CONCLUSION

The decision of the court below is correct. There is no conflict of decisions. It is therefore respectfully submitted that the petitions for writs of certiorari be denied.

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SEPTEMBER 1942.

APPENDIX

Section 201 of the Federal Power Act of 1935, 49 Stat. 847 (16 U. S. C. sec. 824) provides as follows:

SECTION 201. (a) It is hereby declared that the business of transmitting and selling electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation of matters relating to generation to the extent provided in this Part and the Part next following and of that part of such business which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary to the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States.

(b) The provisions of this Part shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line. The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this Part and the Part next following, over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the

transmission of electric energy consumed wholly by the transmitter.

(c) For the purpose of this Part, electric energy shall be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof; but only insofar as such transmission takes place within the United States.

(d) The term "sale of electric energy at wholesale" when used in this Part means a sale of electric energy to any person for resale.

(e) The term "public utility" when used in this Part or in the Part next following means any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part.

(f) No provision in this Part shall apply to, or be deemed to include, the United States, a State or any political subdivision of a State, or any agency, authority, or instrumentality of any one or more of the foregoing, or any corporation which is wholly owned, directly or indirectly, by any one or more of the foregoing, or any officer, agent, or employee of any of the foregoing acting as such in the course of his official duty, unless such provision makes specific reference thereto.

Section 203 (a) of the Federal Power Act of 1935, 49 Stat. 849 (16 U. S. C. sec. 824b (a)) provides as follows:

SEC. 203. (a) No public utility shall sell, lease, or otherwise dispose of the whole of its facilities subject to the jurisdiction of the Commission, or any part thereof of a value in excess of $50,000, or by any means whatsoever, directly or indirectly, merge or consolidate such facilities or any part

thereof with those of any other person, or purchase, acquire, or take any security of any other public utility, without first having secured an order of the Commission authorizing it to do so. Upon application for such approval the Commission shall give reasonable notice in writing to the Governor and State commission of each of the States in which the physical property affected, or any part thereof, is situated, and to such other persons as it may deem advisable. After notice and opportunity for hearing, if the Commission finds that the proposed disposition, consolidation, acquisition, or control will be consistent with the public interest, it shall approve the same.

Section 301 (a) of the Federal Power Act of 1935, 49 Stat. 854, (16 U. S. C. sec. 825) provides as follows:

SEC. 301. (a) Every licensee and public utility shall make, keep, and preserve for such periods, such accounts, records of cost-accounting procedures, correspondence, memoranda, papers, books, and other records as the Commission may by rules and regulations prescribe as necessary or appropriate for purposes of the administration of this Act, including accounts, records, and memoranda of the generation, transmission, distribution, delivery, or sale of electric energy, the furnishing of services or facilities in connection therewith, and receipts and expenditures with respect to any of the foregoing: *Provided, however,* That nothing in this Act shall relieve any public utility from keeping any accounts, memoranda, or records which such public utility may be required to keep by or under authority of the laws of any

State. The Commission may prescribe a system of accounts to be kept by licensees and public utilities and may classify such licensees and public utilities and prescribe a system of accounts for each class. The Commission, after notice and opportunity for hearing, may determine by order the accounts in which particular outlays and receipts shall be entered, charged, or credited. The burden of proof to justify every accounting entry questioned by the Commission shall be on the person making, authorizing, or requiring such entry, and the Commission may suspend a charge or credit pending submission of satisfactory proof in support thereof.

U. S. GOVERNMENT PRINTING OFFICE 1942

Nos. 299 and 329

In the Supreme Court of the United States

OCTOBER TERM, 1942

JERSEY CENTRAL POWER & LIGHT COMPANY,
PETITIONER

v.

FEDERAL POWER COMMISSION

NEW JERSEY POWER & LIGHT COMPANY, PETITIONER

v.

FEDERAL POWER COMMISSION

ON WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT

BRIEF FOR THE RESPONDENT

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BRIEF FOR THE RESPONDENT

OPINIONS BELOW

The Determination of the Federal Power Commission (R. 936–940) is reported in 30 P. U. R. (N. S.) 33. The opinion of the United States Circuit Court of Appeals for the Third Circuit (R. 1113–1134) is reported in 129 F. (2d) 183.

JURISDICTION

The judgments of the United States Circuit Court of Appeals for the Third Circuit were entered on May 25, 1942 (R. 1135–1136). The petition for a writ of certiorari was filed in No. 299 on August 13, 1942, and in No. 329 on August 22, 1942. The petitions were granted on October 12, 1942 (R. 1137). The jurisdiction of this Court rests upon Section 313 (b) of the Federal Power Act and Section 240 (a) of the Judicial Code, as amended by the Act of February 13, 1925.

QUESTIONS PRESENTED

Petitioner New Jersey Power & Light Company is a "public utility" within the meaning of Section 201 (e) of the Federal Power Act. Petitioner Jersey Central Power & Light Company owns and operates transmission facilities in New Jersey which extend to and interconnect with transmission facilities of the Public Service Electric and Gas Company. The transmission facilities of the Public Service Electric and Gas Company in turn extend to the mid-channel of a navigable body of water separating the State of New Jersey from Staten Island, New York, and there interconnect with transmission facilities of Staten Island Edison Corporation which extend to Staten Island, New York. Jersey Central Power & Light Company sells electric energy to Public Service Electric and Gas Company, which sells electric energy across the state line to Staten

Island Edison Corporation. Electric energy generated at the plant of Jersey Central Power & Light Company is transmitted through these interconnected facilities and is consumed in the State of New York. Electric energy also is transmitted in the reverse direction over these facilities. The questions are:

1. Does petitioner Jersey Central Power & Light Company own or operate facilities for the transmission of electric energy in interstate commerce within the meaning of Section 201 (b) of the Federal Power Act, so that it is a "public utility" as defined in Section 201 (e) of the Act?

2. If so, has petitioner New Jersey Power & Light Company, admittedly a "public utility," failed to comply with Section 203 (a) of that Act by acquiring common stock of Jersey Central Power & Light Company without prior authorization of the Federal Power Commission, when a state regulatory commission had approved transfer of such stock?

STATUTES INVOLVED

The relevant portions of the statutes involved are set forth in the Appendix, *infra*, pp. 48–53.

STATEMENT

On June 7, 1938, the Federal Power Commission issued an order (R. 1–2) directing petitioner New Jersey Power & Light Company (hereafter called Jersey Power) to submit in writing under

oath detailed information concerning its acquisition of 341,350 shares of common stock of petitioner Jersey Central Power & Light Company (hereafter called Jersey Central) in apparent violation of Section 203 (a) of the Federal Power Act and to show cause, if any, why the Commission should not proceed to enforce the provisions of the Federal Power Act. In its answer (R. 3–8) Jersey Power admitted the acquisition of the stock, but alleged that the stock was acquired with the approval of the Board of Public Utility Commissioners of the State of New Jersey, and denied the applicability of Section 203 (a) on the ground that Jersey Central was not a "public utility" within the meaning of the Act since it did not own or operate any facilities for the transmission or sale of electric energy in interstate commerce. On July 5, 1938, the Commission issued an order instituting an investigation and setting a date for a hearing (R. 9–11). On September 27, 1938, Jersey Central, which alleged that it was not a public utility within the meaning of the Act (R. 15–18), was permitted to intervene (R. 19). Thereafter extensive hearings were held before an examiner.

The material facts developed at the hearing may be summarized as follows:

Jersey Power and Jersey Central own and operate electric systems in the State of New Jersey (R. 35, 58, 1114). These two companies together

with Public Service Electric and Gas Company (hereafter called Public Service) serve territories comprising approximately two-thirds of the State of New Jersey. Both Jersey Power and Public Service admittedly are "public utilities" within the meaning of Section 201 (e) of the Federal Power Act. The electric facilities of these three companies are interconnected and are operated in parallel or synchronism (R. 86–87).[1] Jersey Central owns and operates transmission facilities extending from its generating plant in South Amboy, New Jersey, to the south bank of the Raritan River; thence such transmission facilities continue, under the ownership and operation of Public Service, to Public Service's Mechanic Street substation in Perth Amboy, New Jersey (R. 101, 125, 126, 133, 286, 516). Public Service also owns transmission facilities extending from its Mechanic Street substation to the midchannel of Kill van Kull, a navigable body of water separating the State of New Jersey from Staten Island, New York (R. 348, 101). At midchannel, Public

[1] In addition, these three utilities are interconnected and operate in synchronism with numerous other electric utilities in the States of New York, Pennsylvania, Delaware, and Maryland (R. 86). Synchronism implies not only identical speeds of generators but coincident pulsation of the electric voltage and power (R. 537). Electric utilities, when interconnected, must operate in parallel or synchronism which means that the electrical tie between each and every generator in such an interconnected system is as definite and real as though they were mechanically interconnected by shafting and gears (R. 86–87).

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Service's transmission facilities are interconnected with the transmission facilities of the Staten Island Edison Corporation (hereafter called Staten Island) whose facilities extend from such point of connection to its Atlantic substation on Staten Island, New York (R. 348, 101). The transmission facilities between Jersey Central and Public Service and the transmission facilities from Public Service to Staten Island are attached to the bus[2] at Public Service's Mechanic Street substation which serves as the common point of connection for the three utilities (R. 125, 516–517).

A contract between Jersey Central and Public Service, designated as an "Interconnection Agreement", provides for the interchange of electric energy and the maintenance of the facilities between South Amboy and the Mechanic Street substation (R. 1039–1050). Although this contract provides primarily for the transfer of emergency power to be supplied in the "event of breakdown of equipment, unusual load demands, or other unusual or abnormal condition in the system of either party * * *" it also provides that the facilities may be used, by mutual agreement of the parties, for purposes other than those specifically

[2] A bus conductor, or a group of conductors, is a switchgear assembly which serves as a common connection for three or more circuits. *American Standard Definitions of Electrical Terms*, published by American Institute of Electrical Engineers, p. 97.

provided in the contract (R. 1042). Accordingly, the facilities are used extensively, pursuant to oral arrangement, for the transfer of electric energy which petitioners' witnesses referred to as "economy-flow" energy.[3] During the period January 1, 1937, to March 31, 1938, more than 65,000,000 kilowatt-hours of electric energy were sold and transmitted under this oral contract by Jersey Central to Public Service (R. 1019).[4] The actual

[3] As was pointed out by the court below (R. 1116–1117), all electric energy is the same and will perform the same work (R. 325–326); the name "economy flow" merely denotes attendant circumstances of supply and price (R. 238–240, 259, 263–264, 328–339, 406, 429).

[4] Petitioners (Br. 13–14) seek to belittle the importance of the flow of electric energy between Jersey Central and Public Service. Actually, the record shows that Jersey Central has invested in generating capacity in excess of that required to serve its own loads (R. 40, 330), and deliveries to Public Service are an important outlet for such excess (R. 88). While Public Service has sufficient generating capacity to carry its own loads, the relative efficiency of some of that capacity makes it financially advantageous for it to purchase energy from Jersey Central (R. 249–250). As Public Service actually operates, it relies upon Jersey Central energy in its day-to-day operations (R. 238, 259, 1019–1035). It actually uses Jersey Central power to help carry its peak loads (R. 88, 180–181, 186–187). The interdependence of the interconnected utilities is established by the 1937 annual report of Public Service to the Federal Power Commission. This report shows that the 1937 annual system peak load of Public Service amounting to 551,900 kilowatts (kw.) was supplied as follows: 471,000 kw. by Public Service power plants, 32,000 kw. by Philadelphia Electric, 33,000 kw. by Pennsylvania Power & Light Company, 9,000 kw. by Jersey Central from its South Amboy plant, 2,000 kw. by Staten Island, and 5,000 kw. by other utilities (R. 96–97).

interchange of electric energy, expressed in kilowatt-hours (KWH), for the years 1934–1937 was (R. 978):[5]

	1934	1935	1936	1937
From Jersey Central to Public Service	56,345,000	79,333,106	70,694,825	55,421,000
From Public Service to Jersey Central	1,554,020	969,776	1,240,515	1,631,160

Electric energy was, in turn, interchanged between Staten Island and Public Service pursuant to contract (R. 1068–1069). The interconnection and exchange between Public Service and Staten Island was vital to Staten Island (R. 67, 73–75, 314–315, 397–401, 401–402, 407–409) which had no spinning reserve for the maintenance of service in the event of a break-down of one of its operating generators (R. 247, 395–397, 399).[6] The Jersey Central connection was relied upon as making the Staten Island interconnection with Public Service

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[5] Public Service paid Jersey Central for the electric energy which it received during 1937 the gross sum of $145,789.00 (R. 333).

[6] Staten Island's ordinary mode of operating is dependent upon the use of the interconnection. On the infrequent occasions when it could not rely on such use, due to cable failures, it was necessary for Staten Island to start and operate its less efficient (R. 247) 10,000 and 6,000 kw. generating units, which are ordinarily kept idle or "cold". (R. 406–407). Those units were installed in 1916 and 1920, respectively (R. 67). It takes a half or three-quarters of an hour to start them (R. 370), which makes the availability of the interconnection "very important" to the operation of Staten Island (R. 409).

Its importance is also shown by Staten Island's daily use of energy received from Public Service to help carry its peak hour loads (R. 324). The record of energy flows reveals that Staten Island was in fact,

more dependable (R. 67, 402).[7] Although the interchange of energy between Public Service and Staten Island nearly balanced each year, the energy "in" and the energy "out" of Staten Island are separate transactions (R. 362, 418, 429) and the energy is paid for partly in kind (R. 1013–1017) and partly in cash (R. 1074). For the years 1934–1937 the interchange expressed in kilowatt-hours was (R. 978):

	1934	1935	1936	1937
From Public Service to Staten Island	3,828,100	3,453,500	3,280,000	3,093,400
From Staten Island to Public Service	5,033,800	3,147,300	3,111,400	3,119,200

Log sheets maintained at Public Service's Mechanic Street substation show that energy so

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if not as a matter of contract, dependent on Public Service (R. 240–243). This dependence was not merely for "emergency power" or for "economy power," so-called, for it appeared that although Staten Island was theoretically required, while taking "economy power," to maintain an equivalent generating capacity spinning (R. 445), it was nonetheless the practice of the companies to agree on a price for power to Staten Island at the "economy power" rate, although it involved shutting down Staten Island's generating unit instead of keeping it spinning (R. 457).

[7] A Commission engineering witness testified that since Public Service was under obligation to furnish 25,000 kw. to Staten Island on demand it would not, in his opinion, while under this obligation, shut down its Perth Amboy plant, as it has, without having the Jersey Central connection (R. 263–264). Petitioners did not offer contradictory evidence. Commission engineers testified that emergency and other sudden demands by Staten Island on Public Service were instantaneously reflected in Jersey Central's generation (R. 707–708, 775–776, 802–804).

transmitted from Public Service to Staten Island is energy supplied by Jersey Central. Readings of all meters at the Mechanic Street substation are taken every half hour from 6 A. M. until midnight and hourly from midnight to 6 A. M., and are regularly recorded on the station log sheets. (R. 106–107; 135–137.) Commission engineers, who are experts in this field, made an analysis of 184 readings for various hours of the day and various times of the year during which there was an outflow of energy to Staten Island simultaneously with an inflow of energy from petitioner Jersey Central to the Mechanic Street substation (Comm'n's Exs. 11, 12, R. 983–1001). These readings represent energy transactions during 131 days between January 26, 1937, and September 6, 1938 (R. 135–139, 992–1001). They show that the energy being transmitted by Jersey Central to Public Service's Mechanic Street substation exceeded the total local requirements of Public Service plus the Staten Island load as registered at the substation (Ex. 12, R. 992–1001).

To determine conclusively the out-of-State destination of energy generated by Jersey Central at such times, 24 of the 184 readings, picked at random as representing typical conditions (R. 122–123), were further analyzed. This analysis established the percentage of energy supplied to Staten Island which originated on the Jersey Cen-

tral system (Comm'n's Ex. 16A, R. 1004) and showed that electric energy generated by Jersey Central was flowing out over all bus connections at Mechanic Street substation except the connection with Jersey Central from which energy was flowing into the substation (R. 118, 120–122, 124–125). Detailed study of the 24 readings demonstrated that at all times shown by the 184 readings Jersey Central was supplying all, or practically all, the energy transmitted from Public Service to Staten Island. R. 1004, 108, 112, 122, 125–126, 992–1001.)

Similarly Commission experts studied various readings at Mechanic Street substation on 38 different days between January 13, 1937, and August 12, 1938 (R. 1005–1011) when energy was flowing in the reverse direction (R. 126, 129). These studies demonstrated that the interconnected pool operations of Staten Island, Public Service, and Jersey Central resulted at times in the transmission of electric energy generated by Staten Island in the State of New York through Public Service to Jersey Central (R. 129–133). This transmission of electric energy followed the same pathway as Jersey Central generated energy transmitted to Staten Island (R. 133).

On the basis of the foregoing evidence, the Commission found that the transmission facilities connecting the substation adjoining the plant of

Jersey Central and the Atlantic station of Staten Island provide a direct and interconnected line for the flow of electric energy (R. 939); that electric energy generated by Jersey Central in New Jersey was transmitted over these facilities and consumed in the State of New York and electric energy generated by Staten Island in the State of New York was transmitted over these facilities and consumed in the State of New Jersey (R. 939), and that the part of these facilities owned and operated by Jersey Central, connecting its substation adjacent to its generating plant in South Amboy, New Jersey, to the south bank of the Raritan River are transmission facilities used for the transmission of electric energy which is transmitted from one state and consumed outside thereof (R. 939–940). It concluded that Jersey Central owns and operates transmission facilities for the transmission of electric energy in interstate commerce, that it was a public utility within the meaning of Section 203 (a) of the Federal Power Act, and that Jersey Power had acquired the stock of Jersey Central in violation of Section 203 (a) of the Act since it had not obtained prior authorization from the Commission (R. 939–940). Petitions for rehearings filed with the Commission were denied on September 15, 1939 (R. 963–964). On petitions to the court below for review, the Determination of the Commission was affirmed (R. 1135).

SUMMARY OF ARGUMENT

Petitioners contend that Jersey Power has not violated Section 203 (a) of the Act because Jersey Central is not a public utility as defined in Section 201 of the Act, and that even if it were, the Federal Power Commission cannot regulate the acquisition of Jersey Central's stock by Jersey Power, because such acquisition was approved by the New Jersey Commission. We submit that these contentions are without merit.

1. Jersey Central is a public utility within the definitions of Section 201 of Part II of the Act. Section 201 provides that a public utility is "any person who owns or operates facilities subject to the jurisdiction of the Commission" under Part II; that the Commission has jurisdiction over *all* facilities for "the transmission of electric energy in interstate commerce"; and that transmission in interstate commerce occurs if electric energy is transmitted from one state "and consumed at any point outside thereof." Electric energy generated at Jersey Central's South Amboy plant passes thence over facilities belonging to it and is consumed in New York. Moreover such transmission facilities of Jersey Central are also used for the transmission in the reverse direction of electric energy generated in New York and consumed in New Jersey. Jersey Central accordingly is a "public utility" as defined by the Act.

There is nothing in Section 201 (b) of the Act which deprives the Commission of jurisdiction

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over these facilities. That part of the section which, petitioners contend, withholds from the Commission jurisdiction over facilities used "only for the transmission of electric energy in intrastate commerce," has no application in this case because the facilities here involved are used for interstate as well as intrastate transmission of electric energy. Neither is it necessary to determine whether there is here a "sale of electric energy at wholesale in interstate commerce," since under the terms of the Act the jurisdiction of the Commission may rest either upon transmission or upon sale. Jurisdiction is here predicated upon ownership and operation of facilities for transmission of electric energy in interstate commerce.

The declaration of policy, in the context of the Act as a whole and its legislative history, confirms the conclusion that Jersey Central is a "public utility" within the Act. The interpretation of the statutory definitions for which petitioners contend would rob the Act of vitality and render meaningless a large number provisions in respect of which jurisdiction is expressly conferred upon the Commission. Moreover, notwithstanding any contention that regulation by the Commission is not to extend to particular matters subject to state regulation, the legislative history and the declaration by no means indicate that the concept of "public utility" under the Act was meant to depend on the existence or nonexistence of some state regulation.

The pertinent decisions of this Court support the conclusion of the Commission and the court below that the transmission here involved was in interstate commerce. The cases relied upon by petitioners involved an interruption of the transportation—a fact not here present—and accordingly are not in point. Owing to the nature of the transmission of electric energy, its flow is not only continuous, but virtually instantaneous. If an "interstate intent" is essential, it is met by the fact that officials of Jersey Central either knew or should have known that because of the interconnections which existed interstate transmission was bound to occur. Even under this requirement, intent of the party who initiates the transportation is not necessary; it is enough that such intent exists on the part of any participant in the transaction.

2. Jersey Power has violated Section 203 (a) by acquiring stock of Jersey Central without the prior authorization of the Commission. Petitioners admit that Jersey Power acquired stock of Jersey Central without such authorization and do not deny that such stock is a security within the meaning of Section 203 (a). Inasmuch as both companies were public utilities as defined by the Act it is clear that the Commission correctly decided that Jersey Power had violated the Act.

For the reasons already stated, declarations of policy and legislative history may not be invoked to override the unambiguous language of the Act.

Section 203 (a) within itself provides the degree of deference to be extended to state regulatory authorities and discloses clearly the congressional intent as to the method by which the declaration of policy in Section 201 (a) is to be carried into effect. This is made clear by consideration of Section 204 (f) of the Act, which withholds from Commission regulation issuance of securities and assumption of liability by any public utility which is organized and operating in a state under the laws of which its security issues are regulated by a state commission. No such clause appears in Section 203.

There is no conflict between the Commission and the Board of Public Utility Commissioners of New Jersey. The New Jersey statute operates upon the seller or the company whose stock is acquired and not upon the buyer. The federal act, on the contrary, operates upon the purchaser alone. The two acts are thus complementary. Both statutes confer administrative power to permit, not to compel. Accordingly, they do not present a situation in which one regulatory body directs the acquisition of stock and the other forbids it. Finally, the Federal Power Commission has not forbidden the acquisition of the stock. It has merely held that Jersey Power has violated the Act by acquiring the stock without obtaining its permission. It may well be that such permission ultimately would be granted if applied for. In any event a future conflict is not to be presumed.

ARGUMENT

Both petitioners contend here, as below, that Jersey Central does not transmit electric energy in interstate commerce within the meaning of the Act and that accordingly it does not own or operate any facilities subject to the jurisdiction of the Commission. From this, petitioners urge that Jersey Central is not a "public utility" within the meaning of the Act and hence the acquisition of stock of Jersey Central by Jersey Power did not come within Section 203 (a). Petitioners further urge that, because the Board of Public Service Commissioners of New Jersey approved the transfer of the stock, the Commission could not act in the premises because jurisdiction was withheld from the Commission to the extent that it was exercised by state utility commissions. We submit the court below correctly rejected these contentions.

I

Jersey Central is a "public utility" as defined by the Federal Power Act

As stated above, *supra*, p. 5, Jersey Central owns and operates part of the facilities for the transmission of electric energy from its generating plant at South Amboy, N. J., to a bus in the Mechanic Street substation of Public Service. From the bus, transmission facilities of Public Service extend to mid-channel of a navigable body of water which separates New Jersey from Staten

Island, New York. At mid-channel, Public Service's facilities interconnect with those of the Staten Island Company, which extend to the latter's Atlantic substation on Staten Island, New York. The switches connecting these various transmission facilities are kept closed and as a result electric energy generated by Jersey Central at its South Amboy plant in New Jersey passes over these interconnected facilities and is consumed in New York, while to a lesser degree, electric energy, generated in New York, passes over these same facilities to Jersey Central and is consumed in New Jersey. These facts were found by the Commission, are supported by substantial evidence, and are not disputed by the petitioners.[*] Accordingly, the sole question is whether under these facts Jersey Central is a "public utility" as defined by the Act.

1. Under the plain language of the Act Jersey Central is a public utility

Section 201 (e) of the Act defines a "public utility" as "any person who owns or operates facilities subject to the jurisdiction of the Commission." Section 201 (b) provides that the Act "shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce." It

[*] The findings of the Commission as to facts, if supported by substantial evidence, are conclusive. Section 313 (b) of the Act.

further provides that "the Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy * * *." Section 201 (c) provides that for the purpose of the Act "electric energy shall be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof; but only insofar as such transmission takes place within the United States."

It is admitted by petitioners that electric energy generated by Jersey Central at its South Amboy plant on occasions moves over facilities of Jersey Central and Public Service to the Atlantic Station of the Staten Island Company and is consumed in New York.[9] Such energy clearly is transmitted in interstate commerce within the language of Section 201 (c) of the Act. This electric energy which originated at the South Amboy plant passes over transmission facilities owned and operated by Jersey Central, between its South Amboy plant and the point at the south bank of the Raritan River where they join those of Public Service. Those facilities[10] of Jersey

[9] The Commission found that electric energy was transmitted almost daily throughout 1936, 1937, and to September 1938, over these facilities (R. 939). Such frequent movement of electric energy may not properly be characterized by such terms as an "escape" or "leak" as petitioners seek to do.

[10] "It should be noted that the word 'facilities' is generally regarded as a widely inclusive term, embracing anything which aids or makes easier the performance of the activities

Central are therefore used for the transmission of electric energy in interstate commerce,[11] and under Section 201 (b) of the Act are subject to the Commission's jurisdiction.

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involved in the business of a person or corporation." *Hartford Electric Light Company* v. *Federal Power Commission* (C. C. A. 2), decided November 25, 1942. In that case the court unanimously held that the term included items used in connection with interstate sales, viz. corporate accounts, records, selling organization, etc. In the case at bar, where transmission facilities are owned and operated by the company, no similarly broad question of the scope of the term is presented.

[11] Petitioners apparently contend that Jersey Central's facilities in question are facilities for intrastate transmission of the electric energy which is transmitted from New Jersey and consumed on Staten Island (Pet. Br. 67), and that the facilities over which the energy passes do not become facilities for transmission in interstate commerce until the bus bar in the Mechanic Street substation of Public Service is reached (Pet. Br. 68). But these contentions conflict with Section 201 (c) of the Act, which requires that electric energy "be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof."

Transmission not embraced within this definition—"intrastate transmission"—must therefore be distinguished from "interstate transmission" as not involving electric energy transmitted from a State and consumed outside thereof. The very nature of electric energy makes impossible the classing of Jersey Central's transmission facilities here involved as other than "interstate." When the demand exists in Staten Island and the circuit is closed (as it was at all times), energy generated at the South Amboy plant of Staten Island, is automatically transmitted from New Jersey to Staten Island. It necessarily follows that no transmission of electric energy generated in New Jersey, transmitted therefrom and consumed in New York, can properly be intrastate either in its entirety or as to any one of its differently owned links. Unless Jersey Central's facilities in

At other times, electric energy generated by Staten Island in New York passes over the same facilities of Jersey Central and is consumed in New Jersey. That also constitutes transmission of electric energy in interstate commerce. *Illinois Natural Gas Co.* v. *Central Illinois Public Service Co.*, 314 U. S. 498. This use in itself would make these facilities subject to the jurisdiction of the Commission.

It accordingly follows that Jersey Central is a public utility as defined by Section 201 (e) of the

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question are for the generation, or the local distribution of energy (which is not contended), they are facilities for the transmission thereof in interstate commerce. As this Court has recognized, transmission of electric energy in interstate commerce is an unbroken chain from the point where generation is complete (*Utah Power & Light Co.* v. *Pfost*, 286 U. S. 165, 181) to the point where local distribution begins (*East Ohio Gas Co.* v. *Tax Commission*, 283 U. S. 465, 470–471), admitting and requiring national regulation (*Public Utilities Commission* v. *Attleboro Steam & Electric Co.*, 273 U. S. 83, 89). It is therefore clear that the Commission did not, by treating Jersey Central's facilities in question as facilities for transmission of electric energy in interstate commerce, fly "in the face of the fact" that Congress eliminated from the Commission's jurisdiction "connected" facilities, as petitioners contend (Br. 48). The very excerpts from the hearings quoted by Petitioners show, in the language used both by the Committee Chairman and by Mr. John E. Benton, General Solicitor of the National Association of Railroad & Utilities Commissioners, that the common understanding revolved about the distinction between "intrastate electric energy" (Pet. Br. 47) and "interstate power," i. e., energy (Pet. Br. 51). Not the slightest indication of intention can be discovered, in the Act or its legislative history, to recognize or treat with an intrastate transmission link in the flow of electric energy from one State to another.

Act because it owns and operates transmission facilities subject to the Commission's jurisdiction.

No argument to the contrary can properly be rested on the last clause of Section 201 (b), which provides that the Commission "shall not have jurisdiction, except as specifically provided in this Part and the Part next following, over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce."[12] Section 201 (b) specifically vests the Commission with jurisdiction over *all* facilities for the transmission of electric energy in interstate commerce; it does not require that such facilities be used *exclusively* for such interstate transmission. And while the Commission under Section 201 (b) may not have jurisdiction over the generation, distribution, and exclusively intrastate transmission facilities of a "public utility" except as specifically provided in the Act, any person who owns or operates facilities for interstate transmission of electric energy is, under Section 201 (e), a "public utility" subject to the jurisdiction of the Commission.[13]

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[12] This clause is "a negatively worded confirmation of the Commission's jurisdiction, in certain circumstances, over the facilities mentioned" therein. *Hartford Electric Light Company* v. *Federal Power Commission*, C. C. A. 2d, *supra*, note 10.

[13] This is true notwithstanding the fact such person also owns or operates facilities for generation, local distribution, or intrastate transmission.

Petitioners' contention to the contrary, that the admixture of intrastate transmission with interstate transmission over the same facilities deprives the Commission of jurisdiction over such facilities and over the interstate transmission for which they are used, would emasculate the Act and is clearly erroneous. *Spokane & Inland R. R. v. United States*, 241 U. S. 344, 349–350; *Piedmont & Northern Ry.* v. *Commission*, 286 U. S. 299, 311–312; *Hartford Electric Light Company* v. *Federal Power Commission, supra*, note 10.

Nor is there any merit to petitioners' contention that Jersey Central is not subject to the jurisdiction of the Commission because it does not sell electric energy directly to Staten Island. The jurisdiction conferred on the Commission arises from either of two sources—the ownership or operation of facilities (1) for the transmission of electric energy in interstate commerce, or (2) for the sale of electric energy at wholesale in interstate commerce.[14] It is enough that the Commission finds that facilities are owned or operated for either purpose. Here, after extended hearings and consideration of substantial evidence, the Commission has found that the facili-

[14] "Section 201 (b) confers jurisdiction over not only facilities (1) for interstate *transmission* but also—and *disjunctively*—over facilities (2) for interstate wholesale *sales*." *Hartford Electric Light Company* v. *Federal Power Commission, supra*, note 10.

ties were used for the transmission of electric energy in interstate commerce. Cf. *Gray* v. *Powell*, 314 U. S. 402, 413; *Rochester Telephone Corp.* v. *United States*, 307 U. S. 125, 146. Whether Jersey Central also sells at wholesale in interstate commerce is not in issue and need not here be considered.[18]

2. The Act as a whole and its legislative history confirm the applicability of the definition to Jersey Central

It is our position that the plain statutory language of the definition is to be applied according to its tenor. We submit, however, that the declaration of policy, in the context of the Act as a

[18] Petitioners stress the fact that the court below said "It is, of course, beyond dispute that Jersey Central itself sells no electricity directly in interstate commerce" (R. 1128). It is to be noted that the question of whether Jersey Central owns or operates facilities for the sale of electric energy at wholesale in interstate commerce was not before the court inasmuch as the Commission's order was not based upon any finding to that effect. Moreover, the statement of the court below merely went to the question of a "direct" sale by Jersey Central to Staten Island. As to whether the transaction constituted a sale in interstate commerce, it observed: "Once electricity flowed from the Jersey Central generating plant to the Staten Island Company, commercial transactions between the three companies under their respective contractual relations and arrangements followed. This was interstate commerce within the meaning of the Commerce Clause" R. 1133). Contrary to the implication of petitioner's brief (p. 34) the Commission did not concede in the court below, and does not concede, that Jersey Central's sales of energy which is consumed in New York are not sales in interstate commerce.

whole and its legislative history, confirms the conclusion that Jersey Central is a "public utility" within the Act.

(a) Petitioners contend that Section 201 (a) of the Act, which recites that the Federal regulation referred to therein is "to extend only to those matters which are not subject to regulation by the States," limits all subsequent parts of the Act including Section 201 (b) describing facilities subject to the Commission's jurisdiction and Section 201 (e) defining "public utility." But Section 201 (a) is not phrased as a positive enactment; rather it is a general declaration of policy. Nor do we understand petitioners to contend otherwise. But petitioner's interpretation gives undue weight to the preamble. *Hartford Electric Light Company* v. *Federal Power Commission, supra,* note 10. While averments or preambles of this character unquestionably may be invoked to resolve an ambiguity (*Coosaw Mining Co.* v. *South Carolina,* 144 U. S. 550, 563; *Beard* v. *Rowan,* 9 Pet. 301, 317), they will not prevail against plain language in the enacting clauses of the statute (*Yazoo Railroad Co.* v. *Thomas,* 132 U. S. 174, 188; *Alexander* v. *Alexandria,* 5 Cranch 1, 9–10). The reason for the rule, of course, is clear. While the preamble explains the general purpose which the Act is intended to achieve, the enacting clauses set forth the manner in which the legislative body proposes to achieve that result. If

the language of the preamble were to prevail over the enacting clauses, it would result in the substitution of judicial theories of effectuating a generally enunciated purpose for the legislative scheme specified by Congress.

Indeed, any treatment of the last clause in Section 201 (a) as affirmatively qualifying the "public utility" definition is in the teeth of specific language in other sections recognizing Commission jurisdiction over "public utilities" subject to state regulation. For example, Section 209 (b) provides that the Commission may confer with any state commission "regarding the relationship between rate structures, costs, accounts, charges, practices, classifications, and regulations of public utilities subject to the jurisdiction of such State commissions and of the Commission * * *." Section 301 (a) discloses that public utilities which are subject to the Commission's accounting requirements will necessarily include utilities also subject to state accounting requirements. Where Congress desired to withhold jurisdiction from the Commission because of the existence of state regulation over the same matter, it had no difficulty in so providing by apposite language, as appears from Section 204 (f) which withholds from the Commission jurisdiction in respect of securities whose issuance is subject to state regulation where the issuer is organized and operating in that state. Under the conten-

tion of petitioners, exempting from the act all matters conceivably subject to state regulation, many important provisions of the Act would be rendered meaningless. For such a construction would leave in effect only the provisions providing for regulation of the transmission and sale of electric energy in interstate commerce, which was beyond the power of the states under *Public Utilities Commission* v. *Attleboro Steam & Electric Co.*, 273 U. S. 83. (Cf. *Illinois Natural Gas Co.* v. *Central Illinois Public Service Co.*, 314 U. S. 498; *Missouri* v. *Kansas Gas Co.*, 265 U. S. 298.) Certain parts of the Act having a distinct relationship to such regulations, as well as a substantial general importance, would become utterly meaningless because dealing with matters as to which state bodies unquestionably exercise some jurisdiction: the requirements as to keeping records, making reports, and adopting prescribed accounting procedures (Sections 301, 304); the prohibition against unapproved mergers, consolidations, or disposition of facilities (Section 203); prohibition against unapproved interlocking directorates; and the like. These considerations render untenable the interpretation for which petitioners contend.

But in any event, the question whether Jersey Central is a "public utility" as defined by Section 201 (b), (c), and (e) of the Act does not involve the declaration of policy in Section 201 (a).

The determination that Jersey Central falls within the Act's definition of a "public utility," is not, of itself, regulation. It merely decides that Jersey Central belongs to a class which is subject to regulation under the subsequent sections of the statute, in the circumstances there prescribed. In this case no act of Jersey Central is sought to be regulated by the Commission. The declaration of policy in the Act if otherwise applicable might be of moment when a particular regulation is questioned, but it can hardly merit serious consideration *in limine* when the sole question is whether an electric utility is embraced by the definition of a "public utility" within the meaning of Section 201 of the Act.

(b) Significant material in the legislative history of the Act supports the interpretation placed upon Section 201 (b) by the court below. Petitioners stress portions of the Committee reports and statements made on the floor of Congress to the effect that the Act was intended to fill the gap wherein state regulatory bodies could not act because of the interstate character of the commerce concerned. Such statements can be accepted as indicative of the general purpose, and yet be entitled to no greater effect than a similar declaration of policy in a preamble of the Act. The pertinent inquiry is how Congress chose to effectuate that purpose, and what procedural tools were furnished to the administrative agency

designated to make Congress's desire operative. The Senate Report submitted by Senator Wheeler (Sen. Rep. 621, 74th Cong., 1st sess., pp. 18 and 19) indicates that it was not thought safe to rely on the vague language of a preamble for so important a matter as delimiting jurisdiction: "The limitation on the Federal Power Commission's jurisdiction in this regard has been inserted *in each section* in an effort to prevent the expansion of Federal authority over State matters." [Italics supplied.] And as already stated, certain provisions, such as Section 204 (f) relating to issuance of securities and assumption of liability, spell out the specific limitation of Federal jurisdiction in the field in which state regulation exists.

By making the definition of "public utility" turn on ownership or operation of facilities for transmission or sale of electric energy in interstate commerce, construed to include facilities of the kind here involved, Congress did not encroach on state regulatory jurisdiction as limited in *Public Utilities Commission* v. *Attleboro Steam & Electric Co.*, 273 U. S. 83. In reading the Act that limitation is controlling. Cf. *Parker* v. *Motor Boat Sales*, 314 U. S. 244; *Hartford Electric Light Company* v. *Federal Power Commission, supra.* Moreover, the regulatory provisions applicable to "public utilities" contain express provisions saving state requirements; and in any

event there is no necessary conflict between federal requirement for administrative approval and state requirement for administrative approval such as would cause the latter to be superseded.

3. The prior decisions of this Court support the conclusion that Jersey Central's facilities in question are facilities for the transmission of electric energy in interstate commerce

Petitioners contend at length that under prior decisions of this Court as to what constitutes interstate commerce, the transmission of electric energy over the facilities of Jersey Central is not transmission in such commerce.[18] They advert, curiously, to cases falling into two general categories: (1) Where a commodity which had been transported interstate was thereafter locally distributed within a state, and (2) Where after intrastate movement and prior to movement out of state, a commodity had come to a complete rest within the state of origin (whether for storage, manufacture, processing, negotiation of sale, or otherwise). In such cases, this Court had held that the local distribution, or the intrastate move-

[18] Neither the Commission nor the court below relied on the *effect* on interstate commerce of Jersey Central's facilities, or of transactions carried on by means thereof, as a reason for subjecting them to Commission jurisdiction. Both concluded that the facilities were facilities for the transmission of electric energy "in" interstate commerce. Petitioners' arguments differentiating the Act from other Federal legislation based on effect on interstate commerce are thus superfluous. Cf. *Illinois Natural Gas Co. v. Central Illinois Public Service Co.*, 314 U. S. 498, 509–510.

ment prior to such coming to rest, was not so connected with the interstate movement as to be "in" interstate commerce. The cases of this character, cited by petitioner, depend upon their own peculiar facts. Decisions of this Court involving facts more analogous to the situation herein presented, in which an opposite conclusion has been reached, are far more numerous."

The cases relied upon by petitioners are not pertinent here because the movement of the electric energy from point of origin at the generating plant in South Amboy, New Jersey, to destination in Staten Island, New York, was not interrupted or broken either at the Raritan River, the

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[17] E. g., *Kelley* v. *Rhoads*, 188 U. S. 1, 8; *Southern Pacific Terminal Co.* v. *Interstate Commerce Commission*, 219 U. S. 498, 526; *Texas & N. O. R. R. Co.* v. *Sabine Trans Co.*, 227 U. S. 111, 126, 130; *The Pipe Line Cases*, 234 U. S. 548; 560; *Western Oil Refining Co.* v. *Lipscomb*, 244 U. S. 346, 349; *Western Union Telegraph Co.* v. *Foster*, 247 U. S. 105, 113; *Pennsylvania Gas Co.* v. *Public Service Commission*, 252 U. S. 23, 31; *Eureka Pipe Line Co.* v. *Hallanan*, 257 U. S. 265, 272; *United Fuel Gas Co.* v. *Hallanan*, 257 U. S. 277, 281; *Dahnke-Walker Milling Co.* v. *Bondurant*, 257 U. S. 282; *Lemke* v. *Farmers Grain Co.*, 258 U. S. 50, 58; *Baltimore & O. S. W. R. R. Co.* v. *Settle*, 260 U. S. 166, 171; *Champlain Co.* v. *Brattleboro*, 260 U. S. 366, 376; *Spalding & Bros.* v. *Edwards*, 262 U. S. 66, 69; *Hughes Brothers Timber Co.* v. *Minnesota*, 272 U. S. 469, 474; *Carson Petroleum Co.* v. *Vial*, 279 U. S. 95, 109; *United States* v. *Erie R. Co.*, 280 U. S. 98, 102; see also *Peoples Natural Gas Co.* v. *Federal Power Commission*, 127 F. (2d) 153 (App. D. C.), certiorari denied, 316 U. S. 700; *Hartford Electric Light Company* v. *Federal Power Commission*, *supra*, note 10.

Mechanic Street substation, or at any other point in New Jersey. No such interruption in fact could occur.[18]

Petitioners seek to find a basis for a claim of such interruption in the transfer of title or custody to Public Service, in the absence of any contract between Jersey Central and Staten Island, and in the fact that Public Service might prevent the flow of electric energy from South Amboy to Staten Island by opening switches at its Mechanic Street substation or changing its physical facilities or mode of operation.[19] But this Court has held that the continuity of a movement "in" interstate commerce is not interrupted or broken by either change of custody or title (*Illinois Natural Gas Co.* v. *Central Illinois Public Service Co.*, 314 U. S. 498, 503–504, and cases there cited), or the absence of direct contractual relationship (*Western Union Telegraph Co.* v. *Foster*, 247 U. S. 105, 113; *cf. Currin* v. *Wallace*, 306 U. S. 1, 9), or the possibility of a stoppage that does not

[18] The interstate movement which the cases indicate to be necessary is a movement complete from origin to destination. Petitioners' claim that the flow of electric energy from South Amboy to Staten Island is infrequent and irregular and therefore not "continuous", is largely irrelevant, for it is unnecessary under these decisions that such flow be maintained for any specified period of time.

[19] There is no pretense that there is any storage, manufacture of processing, or any negotiation of sales by Public Service after interstate movement starts, such as was presented in the cases relied on by petitioners.

take place (*Flanagan* v. *Federal Coal Co.*, 267 U. S. 222, 225; *Eureka Pipe Line Co.* v. *Hallanan*, 257 U. S. 265, 272; *United Fuel Gas Co.* v. *Hallanan*, 257 U. S. 277, 281).

The elements are here present which, under the prior decisions of this Court, make transmission over Jersey Central's facilities a part of a continuous movement in interstate commerce. The continuity of the transmission of electric energy from the generating plant to the point of consumption, whether within the state of origin or outside thereof, is fixed by the nature of electric energy. Jersey Central's president, himself an electrical engineer, testified that the generation and consumption of electric energy are instantaneous, the amount generated being limited by the amount consumed (R. 311).[20] An increase in

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[20] It is this distinguishing characteristic of electric energy transmission which made particularly appropriate the recognition by this Court in *Public Utilities Commission* v. *Attleboro Steam & Electric Co.*, 273 U. S. 83, 89, of the applicability of the concept previously adopted with respect to natural gas that "the transportation, sale and delivery constitutes an unbroken chain, fundamentally interstate from beginning to end" in all of which "the paramount interest is not local but national, admitting of and requiring uniformity of regulation." This alone is sufficient to distinguish *Superior Oil Company* v. *Mississippi*, 280 U. S. 390 (on which petitioners rely), as shown by the opinion in that case, p. 396. That case is also distinguishable as a tax case (*Minnesota* v. *Blasius*, 290 U. S. 1, 8).

It is therefore futile for Jersey Central to attempt to shift to Public Service the responsibility for control of the flow of electric energy from South Amboy to Staten Island (Pet.

Staten Island's demand on Public Service is instantaneously supplied (until control adjustments can be made) by an increase in generation by the generators carrying Public Service's load at the time, particularly Jersey Central's South Amboy generating plant, which is electrically "nearer" to the Mechanic Street substation than other generating plants (R. 775–776, 789–790). Assuming, arguendo, the necessity for the existence of an intent upon the part of Jersey Central when transmission starts, fixing the out-of-state destination, such intent is shown by the evidence in the record. The deliberateness with which the several companies acted to bring about such flows, coupled with knowledge of the pertinent circumstances upon the part of Jersey Central, compels the conclusion that Jersey Central must have intended the necessary consequences of its participation. So far as the sale of so-called economy energy and the flow of energy for emergency use are concerned, there can be no doubt of the deliberateness of the acts of the several companies, in view of the contract arrangements for such transactions (R. 275, 355, 1039–1050, 1068–1069, 408–409). They must be deemed to have intended the other

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Br. 68, 19, 36), in view of the joint responsibility of all participating companies in providing the pathway. It could with equal plausibility be contended that neither did Public Service control the transmission, as in fact, was testified by one of the petitioners' witnesses (R. 416), and that Staten Island itself directed such transmission by creating the demand.

energy transactions which necessarily ensued, having deliberately adopted the synchronized mode of operation.[21]

Indeed, the evidence is that the operators and officials of the companies involved knew that the electric energy was bound to flow as it did (R. 558–559, 566), and did nothing to prevent such flow (R. 565). One of petitioners' expert witnesses testified that he had recognized, from look-

[21] Where electric utility systems are operated in synchronism, as are those of Jersey Central and Staten Island, with that of Public Service, delivery of electric energy is necessary in order to maintain synchronism (R. 87, 840, 850), and there is a range of amounts of electric energy which experience shows will flow back and forth (R. 565–566, 241). While such flows of energy are variously characterized as "unwanted," "inadvertent," "slopover," or "incidental," that energy is sold to customers (R. 308–311) and utilized (R. 329) as electric energy flowing under another arrangement would be, and the terminology is immaterial (see note 3, *supra*). With the facilities of these companies, such flow may be limited by manual adjustment after it is started (R. 521), but there is no way to prevent its flow (R. 287) as long as the systems are operated in synchronism, although equipment is manufactured to control and limit such flow (R. 438). Synchronized operation is, of course, necessary in order to make emergency power available as the equivalent of spinning reserve, and synchronization is maintained for that purpose even though it involves the inadvertent flow of energy back and forth (R. 362–363, 361, 396–397). The making of the necessary manual adjustments to limit such flow is a matter of secondary importance to the operator (R. 556), and such flows frequently continue for from five to twenty-five minutes (R. 557–558). At times a reverse of flow is deliberately brought about in order to strike a balance for a prior inadvertent flow (R. 413–414).

ing at meters at the Mechanic Street substation when he was there, that at that time Jersey Central energy was flowing to Staten Island (R. 573–578). In view of the particular reasons and opportunity which Jersey Central had for familiarity with the operations of Public Service (R. 331–332), it "cannot escape the impact of the Act by a transparent claim of ignorance of the interstate character" of the movement. *Cf. Warren-Bradshaw-Drilling Co.* v. *Hall et al.*, No. 21, this Term, decided November 9, 1942.

If Jersey Central finds the arrangement for synchronized operation beneficial, as obviously it does, it cannot consistently seek to derive such benefits while denying responsibility for its participation in that arrangement or contend that such participation is too insubstantial to be subject to the law.[22]

And for a transaction to be "in" interstate commerce it is not necessary that the intention or knowledge fixing the out-of-state destination

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[22] Jersey Power's contention (Pet. 29) that the quantity and character of energy flows between Jersey Central and Staten Island "indicates that the maxim *de minimis non curat lex* should apply," appears to have been abandoned in petitioners' brief (cf. Pet. Br. 22). The contention is, in any event, without weight. Jurisdiction under the commerce clause is in no wise dependent upon volume (*National Labor Relations Board* v. *Fainblatt*, 306 U. S. 601, 606; *Valvoline Oil Co.* v. *United States* 308 U. S. 141, 147) or ratio to total business (*Public Utilities Commission* v. *Attleboro Steam & Electric Co.*, 273 U. S. 83, 90).

be that of the party first having custody or title. That the first party has no concern or connection with the subsequent movement out of state is "of no consequence." *Texas & N. O. R. R. Co.* v. *Sabine Tram Co.*, 227 U. S. 111, 126; cf. *United States* v. *Rock Royal Co-operative*, 307 U. S. 533, 568–569; *Mulford* v. *Smith*, 307 U. S. 38, 47; *Currin* v. *Wallace*, 306 U. S. 1, 10; *Eureka Pipe Line Company* v. *Hallanan*, 257 U. S. 265, 272.[23]

Thus far we have considered the facilities only as facilities for the transmission of the electric energy flowing from South Amboy, New Jersey, to Staten Island, New York.[24] Considered in relation to the transmission of electric energy flowing from Staten Island to the substation at South Amboy, Jersey Central's facilities are also used

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[23] In *McCluskey* v. *Marysville & Northern Ry. Co.*, 243 U. S. 36, upon which petitioner relies as establishing that the first shipper must intend the out-of-state destination, the first shipper was also the second and only shipper. In *Arkadelphia Milling Co.* v. *St. Louis Southwestern Ry Co.*, 249 U. S. 134, and *Oregon-Washington R. & Navigation Co.* v. *Strauss & Co.*, 73 F. (2d) 912 (C. C. A. 9), certiorari denied, 294 U. S. 723, the sales which determined that some parts of the commodity would ultimately go out of state, after storage and processing, had not been made when the first movement started. *Baltimore & O. R. Co.* v. *United States*, 15 F. Supp. 674 (N. D. N. Y.), relied on by petitioners, was overruled in a subsequent case between the same parties on the same factual situation by the same court on the question of the sufficiency of the evidence of intent fixing destination at the beginning of the first movement, 24 F. Supp. 734, 735.

[24] As to such flow, no claim that the facilities are for local distribution and hence not for transmission "in" interstate commerce could be made.

for transmission of electric energy in interstate commerce. This Court in *Illinois Natural Gas Co.* v. *Central Illinois Public Service Co.*, 314 U. S. 498, under provisions of the Natural Gas Act corresponding to Section 201 (b) of the Federal Power Act, squarely held that the owner of a segment of gas transmission facilities located wholly within a state is subject to the Federal Power Commission's jurisdiction where the gas had come from out of state.

We submit, therefore, that under the controlling decisions of this Court, as well as the plain language of the Act, the transmission between South Amboy and the Raritan River, over Jersey Central's facilities, of electric energy transmitted from New Jersey and consumed in New York, and vice versa, was transmission "in" interstate commerce, and the ownership and operation of such facilities by Jersey Central were properly held to make it a "public utility" under the Act.

II

Jersey Power failed to comply with Section 203 (a) of the Act by acquiring stock of Jersey Central without first having obtained an order of the Commission authorizing it to do so

Jersey Power applied to the Board of Public Utility Commissioners in New Jersey for approval of an exchange of 341,350 shares of common stock of Jersey Central for certain other securities which it held. The Board approved the transfer

of the common stock on the books of Jersey Central (R. 7). Jersey Power acquired this stock without seeking the prior authorization of the Federal Power Commission as provided in Section 203 (a) of the Act. In addition to its contention that it did not fall within the language of the Act because Jersey Central was not a public utility as defined therein, Jersey Power also contends that Section 203 (a) of the Act does not apply to a transaction of this character because, it says, the declaration of policy set forth in section 201 (a) and the legislative history of the Act disclose that it was not intended to apply to a matter subject to state regulation. It urges that the Board of Public Utility Commissioners of New Jersey had control over a transaction of this character; that the Board exercised such jurisdiction in approving the purchase; that the assumption of jurisdiction over this transaction by the respondent conflicts with that of the state commission, a situation which the Act avowedly intended to avert. We urge that these contentions are without merit.

1. Section 203 (a) of the Act applies to the acquisition of stock here in question

Section 203 (a) forbids a public utility (which Jersey Power admittedly is) from purchasing, acquiring, or taking any security of another public utility (which we have shown Jersey Central to be) without having first obtained authorization

from the Federal Power Commission.[25] Jersey Power neither applied for nor obtained the authorization of the Commission for the acquisition of Jersey Central's stock, which it is not disputed was a security within the meaning of the Act. Accordingly it follows that Jersey Power was subject to the requirements of Section 203 (a).

2. Neither the declaration of policy in Section 201 (a) of the Act nor its legislative history requires a contrary conclusion

At an earlier point in this brief (*supra*, p. 25 *et seq.*), we have discussed the effect of the declaration of policy in Section 201 (a) and of the legislative history of the Act upon Section 201 (b), (c), and (e) in so far as it defined a "public utility." We there pointed out that declarations of policy and legislative history could not prevail over the plain and unambiguous language of the enacting clauses of the Act. For the reasons there stated we submit that the plain and unambiguous language of Section 203 (a) may likewise not be rendered nugatory by resort to the same material.

While Section 203 (a) is regulatory in character, it contains within itself provisions prescrib-

[25] While Jersey Power has not contended that it is completely immune from Commission regulation of stock acquisitions, certain arguments advanced by it, if pressed to their logical conclusion, would lead to that result. If the Federal Power Commission lacked jurisdiction over this transaction because it was subject to state regulation, it would also lack jurisdiction over any stock acquisition by Jersey Power, irrespective of the status of the electric utility whose stock it sought to acquire.

ing the extent to which deference is to be given to state regulation. In respect of the acquisition of the stock here in question there is no conflict between the Commission and the New Jersey Board.

(a) Section 203 (a) of the Act contains provisions for administrative reconciliation of possible divergent views between the Commission and state regulatory agencies. (Cf. *Hartford Electric Light Company* v. *Federal Power Commission*, *supra*, n. 10.) Section 203 (a) provides that upon application for approval of the purchase of the stock the Commission shall give reasonable notice in writing to the Governor and the state commission of each of the states in which the physical property affected, or any part thereof, is situated, and to such other persons as it may deem advisable. This obviously is for the purpose of permitting reference to a joint board for hearing or a conference as provided in Section 209 or at least of permitting the state authorities to express any views which they may entertain. So far as we are aware the Federal Power Commission has never approved the acquisition of stock or a sale or merger of facilities over the objection of a state regulatory body.[28]

[28] The Regulations of the Commission require that a petition under Section 203 (a) show whether or not an application is required to be filed with any other State or Federal authority, and, if so, the filing of a copy of the application and order relating thereto. Federal Power Commission,

That Congress wrote into Section 203 (a) the sole restriction which it intended to apply even in the face of valid state regulation is made abundantly clear by a comparison of that section with Section 204 of the Act, which regulates the issuance of securities and the assumption of contingent liabilities by "public utilities." Section 204 (f) provides that the provisions of that section shall not extend to a public utility organized and operating in a state under the laws of which its security issues are regulated by a state commission. If, as petitioners contend, the declaration of policy in Section 201 (a) precludes federal regulation of any matters subject to state regulation, Section 204 (f) is rendered superfluous, and a nullity in contravention of established rules of statutory construction. *Platt* v. *Union Pacific Railroad Co.*, 99 U. S. 48, 58–59. Section 203, regulating acquisition of securities and sale or merger of facilities, contains no such limiting provision. It appears obvious that it was considered neither desirable nor necessary.

Rules of Practice and Regulations, Part 33, Sec. 33.2, Par. O; Part 3, Sec. 33.2, Exh. K.

Petitioners (Br. 73) seek to explain away Section 204 (f) as being not an exception from the Commission regulatory power where the transaction is subject to state regulation, but a relaxation of a general limitation to that effect (which Petitioners argue Section 201 (a) to be). In the case of security issues, Petitioners say that a particular kind of state regulation is necessary to give rise to the exception, namely regulation by a state regulatory body having jurisdiction to

The significance of the omission of a provision of this character from Section 203 is emphasized by the statement in the Senate Report on the bill which became the Federal Power Act (*supra*, p. 29) that any specific limitation upon the Commission's jurisdiction, where intended, was "inserted in each section to prevent the expansion of federal authority over state matters." As to the wisdom of inserting such provision in Section 204 dealing with the issuance of securities and omitting it from Section 203 dealing with the acquisition of securities we are not here concerned.[28]

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regulate rates and charges for the sale of electric energy to consumers within the state. If this argument *in extremis* requires any answer, it may be noted that (1) this was not the intention of the National Association of Railroad and Utilities Commissioners who sponsored the amendment by which Section 204 (f) was added (p. 1681, Public Utility Holding Companies, Hearings before the House Committee on Interstate and Foreign Commerce, 74th Cong., 1st Sess., on H. R. 5423); (2) petitioners' argument reveals that their contention with respect to Section 201 (a) is that if a matter is subject to any kind of regulation by a state, all Federal Power Commission regulation thereof is dispensed with. This would mean, for example, that if state legislature prescribes standards for health and safety, or fire prevention, or regulates terms or conditions of employment, or imposes any other police regulation with respect to a particular transaction, regulation by the Federal Power Commission is withheld; (3) petitioners' explanation fails to explain why it was provided in Section 204 (f) that the "public utility" must be one "organized *and* operating in a State under the laws of which its security issues are regulated by a State commission". Cf. *Hartford Electric Light Company* v. *Federal Power Commission*, *supra*, note 10.

[28] Section 204 (f) was adopted *in toto* from the revision

(b) There is no conflict between Section 203 (a) and the New Jersey regulation.

(i) It is clear that Section 203 (a) of the Act operates upon the purchasing utility only and does not attempt to control either the vendor or the utility whose stock is acquired. The New Jersey statute (N. J. Stat. Ann. 48:3–10 (infra, p. 52)) on the contrary operates upon the vendor of stock, and provides that one public utility may not sell or permit a transfer to be made upon its books of any of its stock to another public utility unless authorized to do so by the New Jersey Board of Public Utility Commissioners.[29] Thus the fed-

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suggested by the National Association of Railroad and Utilities Commissioners. It appeared as Section 206 (g). It is significant to note that the Association made no similar suggestion with respect to Section 203, which appeared in the Association's revision as Section 205. Hearing before the House Committee on Interstate and Foreign Commerce, 74th Cong., 1st Sess. (H. R. 5423), p. 1663.

[29] It will be noted that in the preliminary parts of petitioners' brief the statement occurs frequently that the New Jersey Board has jurisdiction over Jersey Power's *acquisition* of stock in question. (e. g. Pet. Br. 28, 55, 77). But when petitioners argue the point on the basis of the language of the New Jersey statute they speak only (Pet. Br. 76, 80) of the *transfer* (i. e. on the books of Jersey Central) or the *transfer and sale* (i. e. transfer on the books of Jersey Central and sale by a "public utility incorporated under the laws of" New Jersey). Reference to the provisions of the New Jersey statute printed as Appendix A to Brief for Petitioners, particularly to Title 48, Chapter 3, Section 10, printed, p. A30, will show that there is no requirement for Board approval with respect to the purchaser's acquisition, which is the only thing with which the order under review deals.

eral statute forbids the unauthorized purchase while the state statute forbids the unauthorized sale. The two statutes are accordingly complementary rather than overlapping.

(ii) Both the federal and state statutes confer administrative power to permit, not to compel, the transaction. That is to say, permission must be obtained from both commissions before the transfer can take place but no power is conferred upon either body to compel the acquisition or the sale of stock. Accordingly we do not have a situation where one body may direct something to be done and the other body may forbid it.

(iii) Finally, it is to be observed that the Federal Power Commission has taken no stand upon the question of the acquisition of the stock of Jersey Central by Jersey Power. It has merely found that Jersey Power has violated Section 203 (a) by acquiring the stock of Jersey Central without having obtained permission so to do from the Commission. It may well be that if the question were properly presented to it, the Federal Power Commission would grant its approval of the acquisition. Certainly if such acquisition is in the public interest, as the transfer was found by the state commission to be, it is difficult to believe that permission would be refused. In any event it will be time enough to consider these questions if and when a divergence arises. As the court below

appropriately remarked (R. 1134): "No conflict is shown upon the present record and none *may ever come into existence.*" (Italics supplied).[2]

It is accordingly submitted that under the plain and unambiguous language of Section 203 (b) Jersey Power was required to obtain the permission of the Federal Power Commission for the acquisition of the stock of Jersey Central; that there is nothing in Section 201 (a) or in the legislative history of the Act which renders Section 203 (a) inapplicable to the instant case; and that no invasion of the regulatory power of New Jersey has here occurred.

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[2] The interest of the Commission in scrutinizing the proposed acquisition of stock by one public utility in another is plain. Such acquisition may accomplish the same result as a merger or consolidation, which are also entrusted to the jurisdiction of the Commission under Section 203 (a). One "public utility" acquiring control over another may intend to use such control to alter the existing transmission facilities and their physical interconnections, in a manner which may impair the adequacy of service to interstate customers or adversely affect the rates charged them. The Commission's power to examine and withhold approval from such an acquisition in advance, would prevent the prejudice to the public interest and the disadvantage to all parties concerned which might follow from postponing until the transaction is completed, Commission action to remove the impediments to adequate interstate service. Approval of the transaction by a state commission alone will not meet these objections, for the local body may not consider, or even have jurisdiction to consider, the effect of the transaction upon interstate or out-of-state utilities and consumers, or other interests safeguarded by the Federal Power Act.

CONCLUSION

For the reasons stated, it is respectfully submitted that the decision below is correct and should be affirmed.

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APPENDIX

The Federal Power Act of 1935, 49 Stat. 847 (16 U. S. C. sec. 824) provides in part as follows:

SECTION 201. (a) It is hereby declared that the business of transmitting and selling electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation of matters relating to generation to the extent provided in this Part and the Part next following and of that part of such business which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary to the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States.

(b) The provisions of this Part shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line. The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this Part and the Part next following, over facilities used for the generation of

electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter.

(c) For the purpose of this Part, electric energy shall be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof; but only insofar as such transmission takes place within the United States.

(d) The term "sale of electric energy at wholesale" when used in this Part means a sale of electric energy to any person for resale.

(e) The term "public utility" when used in this Part or in the Part next following means any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part.

(f) No provision in this Part shall apply to, or be deemed to include, the United States, a State or any political subdivision of a State, or any agency, authority, or instrumentality of any one or more of the foregoing, or any corporation which is wholly owned, directly or indirectly, by any one or more of the foregoing, or any officer, agent, or employee of any of the foregoing acting as such in the course of his official duty, unless such provision makes specific reference thereto.

* * * * * *

SEC. 203. (a) No public utility shall sell, lease, or otherwise dispose of the whole of its facilities subject to the jurisdiction of the Commission, or any part thereof of a value in excess of $50,000, or by any means whatsoever, directly or indirectly, merge or con-

solidate such facilities or any part thereof with those of any other person, or purchase, acquire, or take any security of any other public utility, without first having secured an order of the Commission authorizing it to do so. Upon application for such approval the Commission shall give reasonable notice in writing to the Governor and State commission of each of the States in which the physical property affected, or any part thereof, is situated, and to such other persons as it may deem advisable. After notice and opportunity for hearing, if the Commission finds that the proposed disposition, consolidation, acquisition, or control will be consistent with the public interest, it shall approve the same.

* * * * *

SEC. 204. (a) No public utility shall issue any security, or assume any obligation or liability as guarantor, indorser, surety, or otherwise in respect of any security of another person, unless and until, and then only to the extent that, upon application by the public utility, the Commission by order authorizes such issue or assumption of liability. The Commission shall make such order only if it finds that such issue or assumption (a) is for some lawful object, within the corporate purposes of the applicant and compatible with the public interest, which is necessary or appropriate for or consistent with the proper performance by the applicant of service as a public utility and which will not impair its ability to perform that service, and (b) is reasonably necessary or appropriate for such purposes. The provisions of this section shall be effective six months after this Part takes effect.

* * * * *

(f) The provisions of this section shall not extend to a public utility organized and operating in a State under the laws of which its security issues are regulated by a State commission.

* * * * *

SEC. 209. (b) The Commission may confer with any State commission regarding the relationship between rate structures, costs, accounts, charges, practices, classifications, and regulations of public utilities subject to the jurisdiction of such State commission and of the Commission; and the Commission is authorized, under such rules and regulations as it shall prescribe, to hold joint hearings with any State commission in connection with any matter with respect to which the Commission is authorized to act. The Commission is authorized in the administration of this Act to avail itself of such cooperation, services, records, and facilities as may be afforded by any State commission.

* * * * *

SEC. 301. (a) Every licensee and public utility shall make, keep, and preserve for such periods, such accounts, records of cost-accounting procedures, correspondence, memoranda, papers, books, and other records as the Commission may by rules and regulations prescribe as necessary or appropriate for purposes of the administration of this Act, including accounts, records, and memoranda of the generation, transmission, distribution, delivery, or sale of electric energy, the furnishing of services or facilities in connection therewith, and receipts and expenditures with respect to any of the foregoing: *Provided, however,* That nothing in this Act shall relieve any public utility from keeping any accounts, memoranda, or records which

such public utility may be required to keep by or under authority of the laws of any State. The Commission may prescribe a system of accounts to be kept by licensees and public utilities and may classify such licensees and public utilities and prescribe a system of accounts for each class. The Commission, after notice and opportunity for hearing, may determine by order the accounts in which particular outlays and receipts shall be entered, charged, or credited. The burden of proof to justify every accounting entry questioned by the Commission shall be on the person making, authorizing, or requiring such entry, and the Commission may suspend a charge or credit pending submission of satisfactory proof in support thereof.

NEW JERSEY STATUTE

Section 19 of the Act of April 21, 1911, as amended by the Act of March 5, 1935 (N. J. Stat. Ann. 48:3–10) provides as follows:

19. No public utility as herein defined incorporated under the laws of this State shall sell, nor shall any such public utility make or permit to be made upon its books any transfer of any share or shares of its capital stock, to any other public utility as herein defined, unless authorized to do so by the board. Nor shall any public utility as herein defined incorporated under the laws of this State sell any share or shares of its capital stock or make or permit any transfer thereof to be made upon its books, to any corporation, domestic or foreign, or any person, the result of which sale or transfer in itself or in connection with other previous sales or transfers shall be to vest in such corporation or person a majority in interest of the out-

standing capital stock of such public utility corporation unless authorized to do so by the board. Every assignment, transfer, contract or agreement for assignment or transfer, by or through any person or corporation to any corporation or person in violation of any of the provisions hereof shall be void and of no effect, and no such transfer shall be made on the books of any public utility corporation. Nothing herein contained shall be construed to prevent the holding of stock heretofore lawfully acquired.

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SEP 8

IN THE

Supreme Court of the United States

OCTOBER TERM, 1942

No. 299

JERSEY CENTRAL POWER AND LIGHT COMPANY,
Petitioner,

v.

THE FEDERAL POWER COMMISSION,
Respondent.

BRIEF FILED ON BEHALF OF THE NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS, AS AMICUS CURIAE, IN SUPPORT OF THE PETITION FOR WRIT OF CERTIORARI

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....., 1942.

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OPINIONS BELOW.

The Order of the Federal Power Commission is printed at page 936 of the record. The Opinion of the Circuit Court of Appeals for the Third Circuit is printed at page 1113 of the record. Neither has yet been officially reported.

PRELIMINARY STATEMENT.

The National Association of Railroad and Utilities Commissioners is a voluntary Association embracing within its membership the members of the regulatory commissions and boards of the several States of the United States except two, one of which has no State regulatory commission.

By the constitution of the Association, the President of the Association, and the Executive Committee, or either of them, may direct the General Solicitor to appear on behalf of the Association (as distinguished from a particular commission represented in its membership) in any proceeding pending before any court or commission in which, in the judgment of such President or Committee, appearance on behalf of the Association should be made. This brief is offered for filing on behalf of said Association by direction of the President and also of the Executive Committee of said Association, in the general public interest.

STATEMENT OF THE CASE.

The judgment below affirmed a decision of the Federal Power Commission, hereinafter called the Federal Commission, holding the Petitioner, the Jersey Central Power and Light Company, hereinafter called the Jersey Central, to be a public utility subject to the jurisdiction of that Commission.

Said decision was rendered in a proceeding begun by the Commission, on its own motion, against the New Jersey Power and Light Company, a public utility admittedly subject to the Commission's jurisdiction. That Company had acquired securities of the Jersey Central without first procuring an order of the Federal Power Commission authorizing the acquisition. Thereupon the Commission instituted a proceeding against said New Jersey Power and Light Company ordering it to show cause why such acquisition of securities should not be held in violation of Section 203(a) of the Federal Power Act. (49 Stat. 849, 16 U. S. C. A., Sec. 824b(a), which section makes it unlawful for a public

utility subject to the Act to acquire securities of another such public utility without first procuring such authority. The Jersey Central intervened in that proceeding, and denied that it was a public utility subject to the jurisdiction of the Federal Commission. That Commission held that it was so subject. (R. 1114) The court below affirmed that decision. (R. 1134)

The sole question involved is whether the Jersey Central is subject to the jurisdiction of the Federal Commission.

STATEMENT OF FACTS.

The Jersey Central is engaged in the generation and distribution of electric energy in the State of New Jersey. All of its physical property is located in that State. It sells only to customers in New Jersey. It does not own or operate any facilities which cross any State line. (R. 1114)

The principal business of Jersey Central is the retail sale of electric energy to the public. However, Jersey Central exchanges electric energy with another electric utility, Public Service Electric Company, hereinafter called Public Service. In the course of these exchanges, it from time to time transmits electric energy to Public Service, and from time to time receives energy from Public Service. (R. 1117) It is upon such transmission between the two companies that the Federal Power Commission's decision in question in this case is rested. (R. 1121)

For the purpose of effecting the exchanges of electric energy just referred to, Jersey Central maintains a transmission line, owned and operated by it, from its power plant in South Amboy, New Jersey to a point on the South bank of the Raritan River, a distance of 7/8ths of a mile. At that point the line connects with a submarine cable owned by Public Service which crosses the Raritan River and runs to the Public Service Mechanic Street Station at Perth Amboy. Over these connecting facilities the exchanges mentioned are made. (R. 1115)

The exchange transactions are of two kinds: One is so-called emergency or break down service by which, in case of a break down on either system, energy may be supplied from the other system. The other is the interchange of so-called economy flow energy, under an arrangement whereby delivery of energy takes place to either company whenever the delivering company is able to generate at less cost than the receiving company could generate with its own facilities. The purpose of the interchange of economy flow energy is to accomplish the possible savings, which are divided between the two companies. (R. 1116) At the Mechanic Street Station of Public Service at Perth Amboy, energy transmitted from the Jersey Central station is received at the bus bar, upon which there are a considerable number of connections, one of which is with a transmission line which connects the plant of Public Service with the plant of Staten Island Edison Company, hereinafter called Staten Island, in the State of New York. (R. 1115)

Over this transmission line, connecting the plants of Public Service and Staten Island, electric energy is interchanged from time to time in so-called emergency service, if and when either of said companies has need of such service. Furthermore, because the systems of the two companies are thus connected, whenever there is a sudden demand for more energy upon one system, there is a tendency for it to draw upon the system with which it is connected for the instantaneous period between the demand and the resulting speed up of its own generators to supply that demand. Since the system of Public Service is connected not only with Staten Island but with Jersey Central and "also with other electrical transmission systems covering the southern part of New Jersey, the southeastern part of Pennsylvania, and the northeastern part of Maryland and Delaware" there is the same tendency to draw energy to any one of these systems, upon which there is such a sudden demand, from the other connected systems for such instantaneous speed up period. Accordingly, "it is obvious

that there will be some incidental or slop-over current (as it is called) passing through the various system connections, including the Mechanic Street Substation which comprise the connections between Jersey Central and Public Service on the one hand and Public Service and the Staten Island Company on the other. (Opinion below. R. 1117-1118)

Jersey Central does not sell electric energy to Staten Island and has no contractual relations whatever with it. Its relations with Public Service are wholly independent of any contractual relations between Public Service and Staten Island. (R. 1133) The Commission found, however, that at times when energy is flowing from Jersey Central to Public Service energy is also flowing from Public Service to Staten Island, and that there is, in fact, at such times, a flow of energy from Jersey Central to Staten Island. Readings taken on 184 occasions showed that such direct flow of energy to Staten Island happened on 24 of such occasions. (R. 1119)

Solely upon the basis of this finding, that upon some occasions some of the energy received by Public Service from Jersey Central is instantaneously transmitted in interstate commerce to Staten Island, the Commission held Jersey Central to be a public utility subject to its jurisdiction under the Federal Power Act. (R. 1121)

Upon appeal, the court below found that it was "beyond dispute that Jersey Central sells no electricity directly in interstate commerce." (R. 1128) As respects the flow of energy from Jersey Central to Staten Island, through Public Service, the court found as follows:

> "How much of the electricity which flowed from Public Service to the Staten Island Company originated in Jersey Central's South Amboy generators and passed over the connecting line from South Amboy to the Mechanic Street Substation and thence through the bus-bar to the Staten Island Company no one can say. It is certain that *some* did go to the Staten Island Company. Measured in terms of the KWH generated and

transmitted by large electric public utility systems *it was small.*" (R. 1121. Italics supplied). The court, however, sustained the Commission's decision, saying:

"We think that Congress intended to impose regulation upon those public utilities which operate facilities for the transmission of electricity in interstate commerce, transmission in interstate commerce being defined as electricity transmitted from a state and consumed at any point outside its borders.

. . . . . .

Some part of the electricity passing from the Jersey Central system to the Public Service system moved in interstate commerce and *reached the Staten Island Company.* That electric energy was transmitted in interstate commerce within the meaning of Section 201(c) *if the words of the subsection be applied literally.* The facilities of Jersey Central were in fact employed for this transmission. This was not an accident. Once the circuit between the Jersey Central generating plant and the Staten Island Company (fol.1142) was closed, inevitably electricity flowed from Jersey Central to the Staten Island Company. That result was not only not unexpected, it was unavoidable. The fact that Jersey Central sold this electricity to Public Service rather than to Staten Island does not serve to put the flow out of commerce. *Once electricity flowed from the Jersey Central* generating plant to the Staten Island Company, commercial transactions between the three companies under their respective contractual relations and arrangements followed. *This was interstate commerce within the meaning of the Commerce Clause.*" (R. 1132-1133. Italics supplied.)

THE QUESTION PRESENTED.

It will be perceived that the court sustained the Commission's decision because of the ownership by Jersey Central of the 7/8 mile of transmission line over which it transmits electric energy to Public Service, which energy, without interruption of movement, is by that company transmitted to a destination in another State, where it is ultimately consumed. This is held to be ownership of a facility used in interstate commerce.

The question presented is whether Jersey Central, the property of which is located wholly within the state of New Jersey, which sells and transmits electric energy only in New Jersey, is subject to the jurisdiction of the Federal Commission because some of the energy which it transmits to Public Service is by that Company used in its exchange transactions with Staten Island, and is thus transmitted in interstate commerce.

REASONS FOR GRANTING THE WRIT.

The decision of the court below should be reviewed by this court because it erroneously construes a Federal statute in such manner as to give to the Federal Commission jurisdiction over a public utility which is in no way engaged in interstate commerce, in disregard of the plain intent of Congress. The legal question involved is highly important. It has not been but should be, passed upon by this court.

The decision of the Federal Commission, sustained by the court below, in effect is that if electric energy, transmitted over the lines of one utility to another utility, is finally in any part transmitted across a State line, either by the second utility, or by any other utility upon the lines of which the same may come, then every utility, upon the lines of which such energy flows, is subject to the jurisdiction of the Federal Commission. That decision, if sustained, will bring under the jurisdiction of the Federal Commission a very large proportion of the important intrastate electric utilities in the several states of the United States, in disregard of the intent of Congress, and in violation of the right of the states to regulate their internal affairs.

Such misconstruction of the Act should at once be corrected by a decision of this court, so that the Commission may understand and observe the limits of its jurisdiction, as fixed by Congress, and so that the States may be left undisturbed in the exercise of their proper powers, which the Congress designed to preserve.

SUMMARY OF ARGUMENT.

1. (Pages 14-17). Congress intended to limit the jurisdiction of the Federal Commission to the business of "transmitting and selling" electric energy in interstate commerce at wholesale, in such manner as to be beyond the reach of State regulation. Transmission in interstate commerce not for sale at wholesale was not intended to be regulated under the Act.

The question presented is one of construction of the Federal Power Act, and a correct construction can be reached only by keeping in mind the intended purpose of Congress when it enacted the statute. The jurisdictional provisions of the statute are easy to understand if the situation which faced Congress is considered. Opinions of this court in *Pennsylvania Gas Company* v. *Public Service Commission*, 252 U. S. 23, and in other cases, had held interstate sales of utilities directly to customers to be local in character and subject to State regulation. On the other hand, interstate sales at wholesale, from one utility to another, for resale, this court in *Public Utilities Commission* v. *Attleboro*, etc., 273, 83, and other cases, had held to be national in character, and beyond the reach of State power. This left a gap in regulation which the Federal Commission and the State commissions united in asking Congress to fill. The Federal Power Act was enacted in response to that request, for the declared purpose only of filling that gap.

2. (Pages 17-25). The legislative history of the Act, and the language of the Act itself, each shows with singular clearness the intent of Congress not to impair or displace State regulation as to any matter of distribution or sale which, under the Federal Constitution, as construed by this court, was within the reach of State regulation.

When the Act was under consideration by Congress, Federal and State commissioners testified that the need for Federal regulation extended only to interstate transmission and sale by one utility to another at wholesale, and asked that State authority be not disturbed as to local transactions.

The Senate and the House, in revision of the bill, made changes designed to preserve State power from impairment, and the respective committees of the two Houses made clear that the purpose of the legislation was to cover the regulatory field with respect to interstate transmission and sale of electric energy at wholesale, held by this court in the *Attleboro Case* to be beyond the reach of State regulatory power.

3. (Pages 25-27). The Federal Power Act can not be so construed as to extend Federal regulation to the Jersey Central without impairing or displacing State authority as to a large class of electric utilities heretofore subject to exclusive regulation by the respective states, in disregard of the plainly expressed intent of Congress.

It is beyond question that, unless prevented by Federal regulation, New Jersey may regulate all the activities of Jersey Central.

Generation of electric energy is a local activity subject to State control. *Utah L. & P. Co. v. Pfost*, 280 U. S. 167, 181-182. Generation by Jersey Central was not for sale in interstate commerce. All of the business of that company was intrastate, including its exchange transactions with Public Service. None was within the category of matters "not subject to regulation by the States."

Accordingly, to the extent to which the construction of the court below may subject the Jersey Central to regulation by the Federal Commission, such construction disregards the plainly expressed intent of Congress. The effect of it will be to impair or displace State regulation as to a large class of utilities heretofore subject to exclusive State regulation.

4. (Pages 27-29). The words "such regulation, however, to extend only to those matters which are not subject to regulation by the States" may not be disregarded in determining the application of the Federal Power Act.

No contention is here made, that those words should receive such a construction as to exclude from the jurisdiction of the Federal Commission every matter whatsoever which

could be reached by State regulation. They were designed as a guide, in the construction of the Act, to accomplish the intended purpose of Congress to protect and preserve State regulation.

The plain purpose of Congress was that the Act should be so construed as not to bring under Federal regulation matters of distribution and sale of an intrastate or local character, which were subject to such State regulation. Every sale of electric energy, except a "sale at wholesale in interstate commerce," was expressly excluded from the application of the Act. In this case, no "sale at wholesale in interstate commerce" by Jersey Central, such as the Congress designed to bring under Federal regulation, has been shown.

Generation of the energy transmitted by Jersey Central to Public Service was a local transaction. *Utah P. & L. Co. v. Pfost*, 280 U. S. 165, 182. Such energy was disposed of to Public Service in intrastate commerce. The fragment of transmission line used in making delivery was accordingly a facility used "in local distribution," and "in intrastate commerce," and was thus doubly excluded from the jurisdiction of the Federal Commission under the express language of Section 201(b).

To hold that Jersey Central's disposition of energy to Public Service was not in intrastate commerce, because some part of the same may have flowed instantaneously to an ultimate destination in another State, is in effect to hold that no sale of electric energy in intrastate commerce can ever be made in a situation in which any person, into whose control any part of such energy shall come, shall so use the same as to permit any part thereof to flow across a State line for consumption in another State. This is not a practical conception of the effect of the Commerce Clause of the Federal Constitution.

5. (Pages 29-32). If the exchange transactions of Jersey Central with Public Service can be held so connected with interstate commerce as to be "in interstate commerce" they are, nevertheless, local in character, and not designed by Congress to be subject to regulation under the Act.

Such transactions are incident to the intrastate commerce in which Jersey Central is engaged. They affect the interests of consumers in other states, if at all, only indirectly, and so slightly as to fall within the rule of *Pennsylvania Gas Company Case*, 252 U. S. 23, 29. They do not fall within the reasoning of the *Attleboro case*, 273 U. S. 83, 87-90.

Not only is Federal regulation of such transactions unnecessary, but, to the extent that the burdens of such Federal regulation may act as a deterrent to the making of interconnections by electric utilities for the accomplishment of economies of operation and of betterment of service, such Federal regulation would be inimical to the public interest, for reasons aside from its impairment of State regulation.

This court has clearly held that, in the construction of a statute, the purpose of Congress must be given effect, even though it may be necessary to disregard the ordinary meaning of words considered in isolation. *Tex. & P. R. Co. v. Gulf Colo. & S. F. Ry. Co.*, 270 U. S. 266, 277; *American Trucking Association v. United States*, 310 U. S. 534, 542.

In this case there is no occasion to deny its natural meaning to any of the language either of Section 201(a), or (b). It is necessary only to give a construction to the words "all facilities for such transmission or sale * * *" in Section 201(b) which is consistent with other portions of the Act, including the declaration of Congressional purpose in Section 201(a).

The word "such" is of paramount importance. That word and its context relate back to the preceding sentence and to the language of Section 201(a), and connote only those transactions of transmission and sale "which are not subject to regulation by the States."

Jersey Central neither owns nor operates any facility used "for *such* transmission or sale" as Congress designed to bring under regulation. Hence Jersey Central does not fall within the definition of Section 201(e). That subsection, like every other provision of the Act, must be read in connection with all other provisions of the Act, and especially in the light of the declared purpose of Congress.

In the light of that declared purpose and of such other provisions of the Act, Section 201 (c) means only that energy shall be deemed transmitted in interstate commerce, for the purpose of regulation under the Act, when transmitted for a sale in interstate commerce of the character to which the Act was designed to apply, and for consumption outside the State where generated.

6. (Pages 32-34). The court below erred in treating the question presented in this case as involving only one of Congressional power. The question presented is not one of Congressional power, but of Congressional intent.

The language of the opinion below indicates that the court, having found as a fact that the transactions between Jersey Central and Public Service were "in interstate commerce," in its view of the law, treated that fact as determinative of the Federal Power Commission's jurisdiction. This was obvious error.

"This case presents the narrow question of what Congress did, not what it could do." *Federal Trade Commission* v. *Runte*, 312 U. S. 249, 355.

7. (Pages 34-39). The objective of Congress in passing the Federal Power Act was to regulate that part of the "business" of transmission and sale of electric energy which involved such transmission and sale at wholesale in interstate commerce. In view of this stated objective the definition of public utility must be related to ordinary commercial relationships between the parties and not to a technical or theoretical discussion of the physical phenomena of electric current. Judged by the standards of commercial relationships, there is no foundation for the finding that Jersey Central is a public utility within the definition of Section 201(e) of the Federal Power Act since Jersey Central's participation in the interstate transmission of electric energy, if any, terminated with delivery of energy to Public Service in the State of New Jersey, and there was no intent on the part of Jersey Central to transmit electric energy to Staten Island Company in New York State.

8. (Pages 39-40). The extent to which Federal regulation will encroach upon State regulation, if the judgment below is sustained, is strikingly illustrated by the opinion below. The opinion states that not only are Jersey Central, Public Service and Staten Island so connected as to permit energy to flow from one system to another, but that these systems, in turn, are connected with "other electric transmission systems covering the Southern part of New Jersey, the Southeastern part of Pennsylvania, the Northeastern part of Maryland (and) Delaware" and with other "interconnected public utilities in Pennsylvania and New York." The opinion below goes on to say:

> "Since these various electric utilities systems are interconnected, it is obvious that there will be some incidental or slop-over current passing through the various system connections including the bus-bar at the Mechanic Street Substation which comprise the connections between Jersey Central and Public Service on the one hand and Public Service and the Staten Island Company on the other." (R. 1118)

This slop-over movement the court below holds to be within the application of the Act, saying, in part:

> "Once the circuit between the Jersey Central generating plant and the Staten Island Company was closed, *inevitably* electricity flowed from Jersey Central to the Staten Island Company. That result was * * * *unavoidable*. The fact that Jersey Central sold this electricity to Public Service rather than to Staten Island does not serve to put the flow out of commerce. * * * It is electricity which is transmitted from New Jersey to New York. *It follows that Jersey Central is a public utility within the meaning of Section 201(e) of the Act.*" (R. 1133) (Italics supplied).

This court will take judicial notice that interconnection between electric utilities throughout the country is general, and that the effect of the judgment below, if sustained, will be to bring under Federal regulation practically all the electric utilities of the several states, in violation of the declared intent of Congress.

9. (Pages 40-42): The court below erred in holding that subjection of the Jersey Central to the regulation of the Federal Power Commission will not impair the jurisdiction of the State commission. "It is of the essence of this (Federal) power that where it exists it dominates." *Shreveport Case*, 234 U. S. 342, 350, *United States* v. *Appalachian Elec. Power Co.*, 311 U. S. 377, 428.

The construction placed upon the Act by the court below not only threatens displacement of State jurisdiction over the purchase of securities of intrastate electric utilities, under circumstances such as are shown here, but, of vastly more importance, it threatens also the jurisdiction of every State commission over every sale of power by one utility to another utility for distribution in intrastate commerce within the State of sale, when any part of energy so sold happens to be permitted by any person thereafter controlling the same to flow into another State for consumption.

ARGUMENT.

By the Enactment of the Federal Power Act Congress Intended to Supplement State Power, Not to Supplant It.

Argument in this brief will be confined to the single point that Congress intended so to limit the jurisdiction granted to the Federal Commission as to confine such jurisdiction to utilities engaged in the business of the interstate transmission and sale of electric energy at wholesale, in such manner as to be beyond the reach of regulation by the States; and that consequently the Jersey Central is not within the jurisdiction of that Commission.

To reach a correct construction of the Federal Power Act, the purpose which Congress intended when it enacted the Act must be kept in view. The legislative history of the Act makes that purpose completely clear and negatives emphatically a construction which would so extend the jurisdiction of the Federal Commission as to subject the Jersey

Central and other electric utilities of the same class, to the regulation of that Commission.

The purpose of Congress was to make complete the regulation of electric utilities. It did not design to do this by the displacement of State authority. Its only purpose was to occupy those portions of the regulatory field which this court had held were beyond the reach of State authority, so that the public might have the benefit of regulation as complete as if a single government exercised all regulatory power over the utilities of the country.

There is no difficulty in understanding the statute, if the situation will be considered under which Congress acted. That situation may be briefly stated:

The States had undertaken the complete regulation of public utility operations within their respective boundaries,—both those operations which were wholly confined within such boundaries, and those which were "in interstate commerce," because they were operations set in motion in one state and terminated in another.

Public utilities resisted regulation, seeking to use the Constitution of the United States as a shield. With respect to operations wholly confined to a single State, this attempt to defeat State regulation failed. *Munn* v. *Illinois*, 94 U. S. 113. In the field of transportation, with respect to operations beginning in one State and ending in another, the attempt to defeat State regulation was attended with a degree of success. In *Wabash Etc. Ry. Co.* v. *Illinois*, 118 U. S. 557, this court held that rates charged for the interstate transportation of freight by rail were not within the reach of State regulation.

The precedent established in *Wabash Etc. Ry. Co.* v. *Illinois*, as to railroad rate regulation, was sought to be used to prevent regulation of interstate utility rates, and with a considerable degree of success, falling very far short, however, of complete success.

In *Pennsylvania Gas Company* v. *Public Service Commission*, 252 U. S. 23, the gas company involved sought to defeat

regulation by the State of New York of the price of gas sold to the public in Buffalo upon the ground that the gas was produced in Pennsylvania and was imported from that State and sold in Buffalo in interstate commerce. This court held that while the commerce in such case was, strictly speaking, in interstate commerce, and thus within the reach of Congress, if and when Congress should choose to exercise its regulatory power, yet the sales to the public at Buffalo were local in character, and subject to State regulation, till Congress should elect to supplant State regulation with Federal regulation.

In *Missouri* v. *Kansas Natural Gas Company*, 265 U. S. 298, the Gas Company involved again resisted state regulation upon the ground that the commerce sought to be regulated was interstate and beyond the reach of State power. The rule in *Wabash Etc. Ry. Co.* v. *Illinois* was again invoked. This time the Company succeeded. The rates sought to be regulated were wholesale rates, applicable to sales of gas to distributing companies by another company, which imported the gas from another State. Sales of that character, this court held, were not local, but national in character, and beyond the reach of the State power. Regulation of such sales, the court said, if to be imposed, must be imposed by the Congress.

The two cases just mentioned involved sales of natural gas, but the rules laid down in those cases were held equally applicable to sales of electric energy. In *Public Utilities Commission* v. *Attleboro Steam & Electric Co.*, 273 U. S. 83, the court was asked to hold invalid an order of the Public Utilities Commission of Rhode Island, regulating the price of electric energy generated in Massachusetts and transmitted by the generating company for sale directly to a distributing company at the Massachusetts State line. In that case, this court reviewed the applicable decisions, and held that the sale of electric energy there involved was national in character, and fell within the rule laid down in *Missouri* v. *Kansas Natural Gas Company*, 265 U. S. 298.

In that decision, the court made clear that two classes of interstate sales were recognized, viz. (1) sales directly to the public, as in the *Pennsylvania Gas Company Case*, 252 U. S. 23, which were considered local in character, and in the absence of Federal regulation, subject to State regulation; and (2) sales at wholesale by one utility to another for re-sale. These latter sales were considered national, and not within the reach of State regulation. As to this second class of interstate sales, there could be no regulation till Congress should supply the same.

Generation of electric energy, however, had been held to be local in character and subject to State regulation. *Utah Power & Light Co. v. Pfost*, 286 U. S. 165.

This situation, under which the transmission and sale of electric energy at wholesale, by one utility to another utility, in interstate commerce, escaped regulation, called for a remedy. The Federal Power Act was designed as the remedy.

The enactment of the statute was urged both by the Federal Power Commission and by the State commissions, as will be shown in the following brief review of the legislative history of the Act.

The Legislative History of the Federal Power Act Makes Plain the Intent of the Congress Not to Displace State Authority Over Any Utility Actually Subject to State Regulation.

Supporting the enactment of the proposed statute, at the first hearing thereon before the House Committee, Commissioner Seavey, the Chairman of the Federal Power Commission, said:

> "The new Title II of this Act is designed to secure coordination on a regional scale of the nation's power resources and to fill the gap in the present state regulation of electric utilities. *It is conceived entirely as a supplement to, and not as a substitution for State Regulation*" (Hearings on H. R. 5423 before House Com-

mittee on Interstate and Foreign Commerce, 74th Congress, 1st Session, p. 384. Italics Supplied.)

The General Solicitor of the National Association of Railroad and Utilities Commissioners, also urging the enactment of legislation, said:

> "I appear by direction of the president and of the executive committee of our association to present certain amendments which we ask to have made to the pending bill. * * *
>
> The second and third sections of the bill provide for regulation by the Federal Government of wholesale transactions in electric power and in natural gas. These are transactions which the United States Supreme Court has held are beyond the reach of the States under the Constitution. The States have long regulated the rates charged by the local distributing companies to consumers; but they cannot reach the interstate producer supplying the distributing company.
>
> The rates fixed in these wholesale transactions necessarily affect the rates to consumers. They are wholly unregulated. The State commissioners favor the filling of this gap by well considered legislation enacted by Congress, which is the only body that can legislate.
>
> In the enactment of this legislation, however, we ask the Congress not to break down the regulation of local service rates, which is now provided under the State laws. This bill in its present form would do this to a very large extent.
>
> The holding company section goes beyond the regulation of holding companies and imposes restrictions and regulations upon operating utilities, the operations of many of which are wholly confined to the several States, within which they operate. The other two sections of the bill the State commissions believe also go beyond the necessities of the situation and would result in transferring from the local State commissions to Federal commissions control of many matters which are now regulated locally and should continue to be so regulated.
>
> The amendments which we have presented have been drawn with the purpose of safeguarding the regulatory

powers of the States." (Hearing on H. R. 5423 before House Committee on Interstate and Foreign Commerce, 74th Congress, 1st Session, Pages 1620 and 1622.)

As the bill stood at that time, Section 201 (a) provided in part as follows:

> "The provisions of this title shall apply to the transmission and sale of electric energy in interstate commerce and to the *production* of energy for such transmission and sale, but shall not apply to the retail sale of energy in local distribution. The Commission shall have jurisdiction over all facilities for such transmission, sale and or *production* of energy by any means *and over all facilities connected therewith as parts of a system of power transmission situated in more than one State*, except facilities for the retail distribution of electric energy. . . . Every person who owns or operates facilities subject to the jurisdiction of the commission under this title and every person who controls, directly or indirectly, any such person shall be subject to the provisions of this title and title III. The term 'public utility' when used in this title and title III means any person who owns or operates such facilities." (Italics supplied.)

The broad sweep of these provisions gave concern to state authorities, lest the jurisdiction of the State commissions should be disturbed within the field of local operations, intrastate and interstate, which this court had held could be occupied by State authority, in the absence of Federal regulation of such local interstate activities. Protecting amendments were accordingly urged on behalf of the States.

The Congress determined to limit the jurisdiction to be granted to the Federal Commission to those interstate activities of electric utilities which could not be reached by State authority. This determination was made clear by express language, both in the bill itself and in the language of Congressional committee reports which accompanied the bill.

Transformation of the bill from the form in which it was first offered began in the Senate and was completed in the House. In each branch of the Congress, changes were made designed to make certain that the conception of the bill, stated by Chairman Seavey, as a supplement to and not as a substitution for state regulation, should certainly be secured, leaving state regulation undisturbed as to activities of electric utilities which were subject to State regulation.

The Senate first acted upon the bill. Section 201(a) was re-cast by the Senate Committee into subsections (a) and (b). The new subsection (a) declared "the business of generating, transmitting, and selling" electric energy to be "affected with a public interest." Said subsection (a) further declared that "Federal regulation of that part of said business which consists of the transmission and sale of electric energy in interstate commerce and the generation of electric energy for such transmission and sale is necessary in the public interest."

Such Federal regulation, however, was considered to be necessary only as to matters which the States could not regulate, and the intent to provide Federal regulation only as to those matters was explicitly declared in said subsection (a) as follows:

> "It is further declared to be the policy of Congress to extend Federal regulation *to those matters which cannot be regulated by the States*, and also to exert Federal authority to strengthen and assist the States in the exercise of their regulatory powers and *not to impair or diminish the powers of any State commission*." (Italics supplied.)

Subsection (b) of said Section 201 as re-cast by the Senate Committee provided as follows:

> "(b) The provisions of this part shall apply to the transmission of electric energy in interstate commerce, to the sale of electric energy at wholesale in interstate commerce and to the production of electric energy for

such transmission or sale, but shall not apply to the retail sale of such energy in local distribution. The Commission shall have jurisdiction over all facilities for such production, transmission, or sale of electric energy by any means and over all facilities connected therewith as parts of a system of power transmission situated in more than one State, except facilities used only for the production or transmission of electric energy in intrastate commerce or in local distribution or for the use of the producer or transmitter. Every person who owns or operates facilities subject to the jurisdiction of the Commission under this part shall be subject to the provisions of this part and the part next following."

The Senate Committee in re-casting the bill thus retained, in substance, the sweeping provisions of the original bill, but undertook to limit their reach by the declaration of the Congressional purpose "not to impair or diminish the power of any State commission," and by excluding from the jurisdiction of the Federal Power Commission "the retail sale of such (electric) energy in local distribution" and by excluding from such jurisdiction "facilities used only for the production or transmission of electric energy in intrastate commerce or in local distribution or for the use of the producer or transmitter." Other changes were also made, in other parts of the bill, designed for the preservation of State regulatory powers.

In reporting the revised bill to the Senate, the Senate Committee said:

> "Subsection (a) * * * declares the *policy of Congress to extend that regulation to those matters which cannot be regulated by the States* and to assist the States in the exercise of their regulatory powers, but *not to impair or diminish the powers of any State commission.* (Italics supplied.)
>
> "Subsection (b) defines the scope of this part of the act and the jurisdiction of the Commission. * * * This subsection leaves to the States the authority to fix local rates even in cases where the energy is brought in from another State. In *Pennsylvania Gas Co.* v.

Public Service Commission (252 U. S. 23), the Supreme Court held that such rates may be regulated by the States in the absence of Federal legislation. The present bill carefully refrains from asserting Federal jurisdiction over these rates. The rate-making powers of the Commission are confined to those wholesale transactions which the Supreme Court held in *Public Utilities Commission* v. *Attleboro Steam & Electric Co.* (273 U. S. 83), to be beyond the reach of the States." (Senate Report No. 621, 74th Congress, 1st Session.)

The redrafted bill, as presented by the Committee, was passed by the Senate. The House, however, was not satisfied that the jurisdiction of the Federal Commission was restricted with sufficient certainty for the adequate protection of State powers. The entire Senate bill was struck out by amendment, and a redraft of the same was substituted. In the redraft, subsections 201 (a) and (b) were as follows:

"Section 201. (a) It is hereby declared that the business of transmitting and selling electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation of that part of such business which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States.

(b) The provisions of this Part shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line. The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction over facilities used for generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intra-

state commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter."

It will be seen that the changes made completely eliminated from the jurisdiction of the Federal Commission "generation of electric energy" and explicitly denied to it "jurisdiction over facilities used for generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter."

In presenting this amended bill to the House, the House Committee in its report said:

> "The new Parts (II and III) are designed to meet the situation which has been created by the recent rapid growth of electric utilities along interstate lines. * * * Under the decision of the Supreme Court of the *United States in Public Utilities Commission* v. *Attleboro Steam and E. Co.* (273 U. S. 83), the rates charged in interstate wholesale transmissions may not be regulated by the States. Part II gives the Federal Power Commission jurisdiction to regulate these rates. A 'wholesale' transaction is defined to mean the sale of electric energy for resale and the Commission is given no jurisdiction over local rates even where the electric energy moves in interstate commerce.
>
> Part II gives control over security issues of interstate operating companies in cases where no State commission has control and over the consolidation, purchase, and sale of interstate operating properties. * * *.
>
> *The bill takes no authority from State commissions* and contains provisions authorizing the Federal Commission to aid the State commissions in their efforts to ascertain and fix reasonable charges. * * * *Probably, no bill in recent years has so recognized the responsibilities of the State regulatory commissions as does title II of this bill.*" (House Report No. 1318, 74th Congress, 1st Session. Italics supplied.)

The bill went to a conference committee where Sections 201 (a) and (b) took their present form. The House lan-

guage of these subsections was preserved save for the insertion in Section (b) of the words "except as specifically provided in this Part and the Part next following," and for a corresponding change in subsection (a).

The purpose of the exception is obvious. The bill excluded generation and facilities used for generation from the Commission's jurisdiction. Exclusion to that extent was designed, but in Sections 207, 301 (a), and 311, the bill proposed to grant specific jurisdiction to the Commission respecting matters indirectly relating to generation. Also in Section 202(c) and (d) it was proposed to provide that in time of war or of national emergency the Commission should have power "to require by order such temporary connection of facilities and such generation * * * of electric energy" as the Commission should find requisite in the public interest. By these several sections, the Commission was to be specifically enabled to exercise jurisdiction for certain purposes as respects generation, under Parts II and III. It was not intended that such proposed jurisdiction should be affected by the exception incorporated in Section 201(b). Accordingly, Congress inserted the exception within the exception. Such insertion, however, was merely to prevent the jurisdiction specifically granted as aforesaid, from being brought in question. It was not intended to render the limiting language in subsections 201(a) and (b) of no effect. That language was inserted to accomplish a definite congressional purpose, and that purpose was made clear by the language in the Act, and by the language of the Committee Reports which presented the legislation to Congress.

This is the legislative history of the Federal Power Act, in the light of which the various provisions of that Act will be construed.

The Federal Power Act Can Not Be So Construed As To Extend to the Jersey Central Without Displacing State Authority As To a Large Class of Public Utilities In Disregard of the Plain Purpose of the Act, As Explicitly Declared Therein.

The purpose of Congress not to extend Federal regulation over matters which could be effectively regulated by the States was made plain by the reports of the Committees representing the two Houses of Congress, in language which we have hereinbefore quoted, and likewise by the language of the Act itself, which explicitly declared that purpose to be that the regulation provided should "extend only to those matters which are not subject to regulation by the States." It is in the light of that purpose that every provision of the Act must be construed, if the will of Congress is to be given effect.

In this case it is beyond question that prior to the enactment of the Federal Power Act the Jersey Central was subject to regulation, in all of its activities, by the State of New Jersey.

The generation of electric energy for the purpose of instantaneous transmission to another State has been held subject to State control in *Utah Power & Light Co.* v. *Pfost*, 286, U. S. 167. In that case this court differentiated generation from instantaneous transmission to a point outside of the state, saying:

> "We are satisfied, upon a consideration of the whole case, that the process of generation is as essentially local as though electrical energy were a physical thing, and to that situation we must apply, as controlling the general rule that commerce does not begin until manufacture is finished, and hence the commerce clause of the Constitution does not prevent the State from exercising exclusive control over the manufacture.
>
> * * *
>
> Without regard to the apparent continuity of the movement, appellant, in effect, is engaged in two activities not in one only. So far as it produces elec-

trical energy in Idaho, its business is purely intrastate, *subject to state* taxation and *control*. In transmitting the product across the state line into Utah, appellant is engaged in interstate commerce and state legislation in respect thereof is subject to the paramount authority of the commerce clause of the federal Constitution." (286 U. S. 181, 182. Italics supplied.)

In this case the Jersey Central did not generate electric energy with the design of selling the same in interstate commerce. All of its activities of transmission and selling were intrastate, both as respects sales to consumers, and as respects its exchange transactions with Public Service. They were activities subject to State regulation, and were actually being regulated by the agency created for that purpose by the State. None of these activities was within the category of "matters which are not subject to regulation by the States." It was, therefore, the declared purpose of the Congress that the regulation of the Federal Power Commission should not extend to Jersey Central.

The Federal Power Commission, however, asserts jurisdiction upon the ground that Jersey Central owns a fraction of a mile of transmission line which is used in the transmission of electric energy to Public Service, some part of which energy, under the contractual interchange arrangements between Public Service and Staten Island, flows to Staten Island in interstate commerce. Because the flow of such electric energy from the power plant of Jersey Central over this facility of that company, and through the plant of the Public Service, to its interstate destination, is instantaneous, the Commission holds the entire movement to be "in interstate commerce," and hence the Jersey Central, by reason of its ownership of a facility used in such transmission, to be a public utility subject to its jurisdiction.

The Commission depends upon the language of Section 201 (b), which declares that the provisions of the Act

"shall apply to the transmission of such electric energy in interstate commerce, and to the sale of electric energy at wholesale in interstate commerce" and that the Commission "shall have jurisdiction over *all* facilities for such transmission or sale * * *." It is said that this language literally applies to the Jersey Central, and brings it within the jurisdiction of the Federal Commission. The Court below so ruled.

To the extent that this ruling subjects the Jersey Central to Federal Power Commission regulation over any of its activities, all of which were subject to State regulation before the enactment of the Federal Power Act, it defeats the purpose of the Congress to extend such Federal regulation only to matters not before subject to State regulation. The effect of it will be to impair, diminish or displace State regulatory power as to a large class of electric utilities heretofore subject to exclusive state regulation.

Section 201(b) and Every Other Part of the Act Must Be Construed in the Light of the Congressional Declaration of Purpose in Section 201(a).

The words "such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States" were inserted in Section 201(a) to accomplish a definite Congressional purpose. They may not properly be disregarded.

No contention is here made that such construction should be given to those words as to exclude from the jurisdiction of the Federal Commission every matter whatsoever connected with the operation of electric utilities which could be reached by State regulation. Those words are designed as a guide in the construction of the Act, so that the application of the same may accomplish the indicated purpose.

The matters intended to be held excluded from the scope of the Federal regulation provided were matters of transmission and sale, held to be affected with a public interest, but local in their nature, and subject to State regulation,

and hence considered by Congress as not necessary to be brought under Federal regulation. The plain purpose of the Congress was to make the Act applicable only as to "that *part* of such business," of transmitting and selling, as was not already subject to regulation by the states.

Undeniably there are other matters, not within the category of matters of transmission or sale, over which the Congress considered it desirable to give the Federal Commission jurisdiction, when that Commission should be dealing with public utilities engaged in interstate transmission and sale at wholesale, even though such other matters might be reached by State regulation. Examples are securities issues, which the Federal Commission may regulate under Section 204(a), subject to the limitations of Section 204(f), and accounts, which the Federal Commission may regulate under Section 301(a) (without relieving utilities regulated from obedience to State regulation, which is expressly protected by the proviso of said Section 301 (a)).

It will be noted that Section 201(b) completely excludes from the application of the statute every sale of electric energy except a "sale at wholesale in interstate commerce." In this case no sale of energy by Jersey Central "at wholesale in interstate commerce," has been shown, of the character which Congress declared necessary to be regulated, and designed to bring under Federal regulation.

The disposition of energy by Jersey Central to Public Service was a disposition in intrastate commerce. If that transaction can be held a "sale" it was a sale in intrastate commerce, and as such was expressly excluded from the application of the Act.

The transaction was intrastate because the production of electric energy was purely local and subject to State control, as this court held in *Utah Light and Power Co.* v. *Pfost*, 286 U. S. 165, 182. Jersey Central had a right to dispose of energy locally produced in local intrastate commerce. It did so dispose of it, transmitting the same over the ⅞ mile of transmission line to the point of delivery to Public Service. That is the transmission relied upon by the Federal

Commission, as bringing the facility, and the utility owning the same, under its jurisdiction. Such transmission, however, is "in local distribution," and "in intrastate commerce"; and facilities used only in such transmission are doubly excluded from the Federal Commission's jurisdiction, by the express language of said Section 201(b).

To hold that this disposition of energy produced by Jersey Central was not in intrastate commerce, by reason of the supposed instantaneous movement of some of that energy from Jersey Central generators to an ultimate destination in New York state, is the equivalent of holding that no sale of electric energy can be made in intrastate commerce if any utility or person, into whose control any of the same shall come, shall so use the same as to permit any part thereof to flow across a state line for consumption in another state. This is not a practical conception of the effect of the Commerce Clause of the Federal Constitution.

If the Exchange Transactions Between Jersey Central and Public Service Can Be Held to be "in Interstate Commerce," They Are Local in Character and Not Within the Application of the Federal Power Act.

If the exchange transactions between Jersey Central and Public Service, through which energy is delivered to Public Service over the 7/8 mile of transmission line here involved, can be held so connected with interstate commerce as to be "in interstate commerce", and hence within the reach of Federal regulation, whenever Congress shall provide such regulation, nevertheless, they are local in character.

Such exchange transactions are incident to the intrastate commerce in which Jersey Central is engaged. They affect the interest of consumers in other states, if at all, only indirectly and so slightly as to be within the rule of the *Pennsylvania Gas Case*, 252 U. S. 23, 29. They do not fall within the reasoning of the *Attleboro Case*, 273 U. S. 83, 89-90. They are not national in character, requiring regulation, if at all, by the Federal government, because subjecting consumers in one state to the danger of burdens imposed for the benefit of consumers in another state.

Not only are transactions such as these not necessary to be regulated by the Federal Government in the interest of interstate consumers, but such Federal regulation is plainly not desirable. To the extent that Federal regulation burdens utilities, and might thus act as a deterrent upon the effecting of inter-connections by intrastate utilities, for the accomplishment of economies in operation and of improvements in service, Federal regulation of such transactions would be inimical to the public interest, for reasons aside from its operation as an impediment to State regulation.

Such exchange transactions are incident to the local business of Jersey Central. In the absence of action of Congress preventing it, they are subject to regulation by New Jersey. They are not within the class of interstate wholesale transactions covered by the *Attleboro Case*. Facilities used in the transmission of energy for delivery to Public Service accordingly are facilities used "in local distribution", within the intent of Congress, and are specifically exempt from Federal regulation by Section 201(b), regardless of whether the transmission be considered intrastate or interstate.

This court has very clearly held that in the construction of a statute the purpose of Congress must be given effect, even though it may be necessary to disregard the grammatical meaning of words or provisions considered in isolation from other parts of the statute under construction. See the opinion of Mr. Justice Brandeis, *Tex. & P. R. Co.* v. *Gulf Col. and S. F. Ry. Co.*, 270 U. S. 266, 277, and of Mr. Justice Reed in *American Trucking Association* v. *U. S.*, 310, U. S. 534, 542.

In this case, however, there is no occasion to deny its natural import to any of the language of Section 201 (a) and (b) in order that the Jersey Central shall be left wholly outside the jurisdiction of the Federal Commission. It is necessary only to give a construction to the words "all facilities for *such* transmission or sale of elec-

tric energy" in Section 201 (b) which is consistent with other portions of the Act. Those words relate back to the words "transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce," in the preceding sentence. Those words of the preceding sentence have a limited meaning. They connote not every transmission and sale, but only *those "which are not subject to regulation by the states."* That is the construction directed by the Act. They therefore exclude sales within a state in intrastate or local interstate commerce, either at wholesale or retail, and they exclude transmission within a state for any such sale, regardless of any disposition of the electric energy after transmission by the selling company, and after that company has parted with title to the same.

Jersey Central neither owns nor operates any facility, "for *such* transmission or sale" as the Act was intended to apply to, and hence Jersey does not fall within the definition of a public utility, as contained in Section 201 (e).

It is not here a question whether such movement of electric energy as takes place between Jersey Central and Staten Island constitutes interstate commerce, which is within the reach of Congress. It is a question, rather, whether it is a movement of that character which Congress intended to take under Federal regulation by the Act.

A construction which brings the Jersey Central under the regulation of the Federal Commission will bring under such regulation every electric utility upon the lines of which any electric energy flows, which thereafter, in any manner, reaches another State for ultimate consumption. Such regulation will apply to matters which are subject to State regulation, and will operate to exclude or encroach upon State regulation, as will be more fully hereinafter pointed out.

The words "transmitted in interstate commerce", as used in the definition in Section 201(e), cannot consistently with the plain purpose of Congress be construed to extend

to every transmission of electric energy generated in one State and consumed in another. The definition containing those words, like every other provision of the Act, must be construed in the light of that declared purpose, so to restrict the application of the provisions of the Act as to cover only "those matters which are not subject to regulation by the states."

In the light of that declaration, and of the accompanying definition in Section 201(d), Section 201(e) plainly means only that electric energy shall be held to be "transmitted in interstate commerce" for the purposes of the Act, when it is transmitted for a sale *of the character to which the Act applies*, and for *consumption outside the State where it is generated*.

That construction will bring the definitions in the Act into complete harmony with each other, and will effectuate the purpose of Congress, which is, or should be, the only object of construction. *American Trucking Association* v. *United States*, 310 U. S. 523, 542.

The Court Below Erred In Construing the Federal Power Act as Applicable to All Transmissions in Interstate Commerce.

The court below cited as analogous cases, *Eureka Pipe Line Company* v. *Hallanan*, 257 U. S. 265 and *United Fuel Gas Company* v. *Hallanan*, 257 U. S. 277—cases which merely support the proposition that natural gas moving, as in those cases, in an uninterrupted flow from the point of production in one state to its ultimate destination in another state is in interstate commerce from the time the movement begins till it reaches its destination, although title thereto may change within the State within which the gas was produced. Resting upon the assumed authority of those cases, the court below said:

> "Once electricity flowed from the Jersey Central generating plant to the Staten Island Company, com-

> mercial transactions between the three companies under their respective contractual relations and arrangements followed. This was interstate commerce within the meaning of the Commerce Clause." (R. 1133)

The fact that there is at times and in some quantity a continuous movement of electric energy from Jersey Central to Staten Island was thus treated as conclusively establishing the status of Jersey Central as a public utility within the definition of Section 201(e). The court thus entertained the assumption that the Congress, by the enactment of the Federal Power Act, designed to make the transmission of energy in interstate commerce determinative of the jurisdiction of the Commission, notwithstanding the declaration of Congress in Section 201(a), that regulation under the Act should "extend only to those matters which are not subject to regulation by the states."

The court below did review the legislative history of the Federal Power Act, to which we have adverted, which history was pressed upon the attention of the court by the Petitioner, and in particular noted the declaration in Section 201(a), just quoted, but the court waived such history and declaration aside because of the definition in Section 201(e), saying:

> "But the contentions of the petitioners in respect to the effect of the legislative history of Part II lose much of their potency when we contemplate the provisions of Section 201(e) which states that electricity shall be held to be transmitted in interstate commerce if transmitted from a state and consumed outside that state. Section 201(e) of the Act was in the original bill submitted to the Senate and the House of Representatives and came into the law substantially without change. That section fits well into the law as laid down by the decision of the Supreme Court in Public Utilities Comm. v. Attleboro Steam and Electric Co., 273 U. S. 83, and takes away, we think, the force of the argument of unconstitutionality made on behalf of the petitioners, at least insofar as the application of Section 201 of the Act to Jersey Central (fol. 1141) is concerned.

> The provisions of Part II were intended by Congress to be applied only to electrical energy transmitted in interstate commerce and in this field there can be no doubt that Congress posses the constitutional right to legislate. See Northern Securities Company v. United States, 193 U. S. 197." (R. 1132).

What the court below did, accordingly, was to permit the words of Section 201(c), taken literally, to deprive the language of Section 201(a), which declares the intent of Congress, of its effect, instead of construing Section 201(c) in conformity with that language, as Congress intended every provision in the Act should be construed.

The fact that the movements of energy, of the character here involved, are in interstate commerce, and thus fall within the scope of the Constitutional power of Congress, under the Commerce Clause, was erroneously considered by the court below as establishing the jurisdiction of the Federal Commission. The question here, however, is not one of Congressional power, but of Congressional intent. To use words from the opinion of Mr. Justice Frankfurter in *Federal Trade Commission* v. *Bunte*, 312, U. S. 249, 355: "This case presents the narrow question of what Congress did, not what it could do."

Congress saw fit to refrain from providing Federal regulation for any matters of transmission or sale except those only which, prior to the time of the enactment of the Federal Power Act, were not subject to state regulation.

Jersey Central Is Not Engaged In the Business of Transmitting and Selling Electric Energy at Wholesale In Interstate Commerce.

Congress limited the jurisdiction of the Federal Power Commission to "those matters not subject to regulation by the states and announced its purpose to regulate the "transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce." From Section 201(a) it is clear that the statute was specific

ally designed to fill the gap in the regulation of electric utilities pointed out in the decision of this court in *Public Utilities Commission* v. *Attleboro Steam and Electric Company*, 273 U. S. 83. In the *Attleboro Case*, the Rhode Island regulatory commission attempted to fix rates for electric energy generated in Rhode Island to be consumed in Massachusetts. The current was to be delivered at the state line, although it was within the knowledge of both parties, and covered by agreement, that the current was for use in Massachusetts and was to be metered in the State of Massachusetts. In that case the court properly construed the nature of the transaction in the following language.

> "It is conceded, rightly, that the sale of electric current by the Narragansett Company to the Attleboro Company is a transaction in interstate commerce, notwithstanding the fact that the current is delivered at the State line. 'The transmission of electric current from one State to another, like that of gas, is interstate commerce * * *' and its essential character is not affected by a passing of custody and title at the state boundary not arresting the continuous transmission to the intended destination."

It will be noted that the transmission was by the selling company, delivered at the state line for an "intended destination." It was this decision which gave impetus to the proposal for establishment of a federal commission to regulate the price of electric energy sold at wholesale in interstate commerce. The facts in the instant case entirely negative any intention on the part of Congress to bring within the jurisdiction of the federal commission transactions such as the sale by Jersey Central of electric energy generated in New Jersey to Public Service Company, delivered and metered in New Jersey. Clearly there was foundation for the holding in the *Attleboro Case* that regulation of the rate charged by the Rhode Island company for the electric energy sold for delivery and consumption in Massachusetts was beyond the power of the state commis-

sion. It is equally clear that the transaction here is one which may be distinguished from the language in the *Attleboro Case* as one properly to be regulated by the state. The business of Jersey Central Company is the generation and selling of electric energy in the State of New Jersey. Its arrangements with Public Service Company are designed to effect economy of operation for both parties to such arrangements. It has been noted that the Federal Power Commission rests its entire case upon the proposition that Jersey Central owns facilities used in the transmission of electric energy in interstate commerce and the court rests its decision exclusively on a literal and technical interpretation of Section 201(c) divorced from other provisions of the Act, particularly the declared intent of Congress. In the light of the specific declaration of Congress that it only found necessary regulation of "that part of the business of transmitting and selling electric energy" which constituted the transmission and sale of such energy at wholesale in interstate commerce, the words of Mr. Justice Holmes in *Superior Oil Company* v. *Mississippi*, 280 U. S. 190, are particularly applicable:

> "But here the gasoline (electric energy) was in the hands of the purchaser to do with as it liked, and there was nothing that in any way committed it to sending the oil to Louisiana except its own wishes. If it had bought bait for fishing that it intended to do itself, the purchase would not have been in interstate commerce because the fishing grounds were known by both parties to be beyond the state line. A distinction has been taken between sales made with a view to a certain result, and those made simply with indifferent knowledge that the buyer contemplates that result."

This court has held that "the process of generation is as essentially local as though electrical energy were a physical thing" (*Utah Power and Light Co.* v. *Pfost*, 282 U. S. 165) which places electric energy in the hands of a purchaser in no different status from coal, oil, or some other source

of energy which the purchaser may use as he sees fit. The peculiar characteristic of electric energy which involves the assumption that there is no transmission except when there is a load on the line and that transmission is instantaneous and continuous from the point of generation to the point of ultimate use, such as the motor or electric light, should not be used as the foundation for setting apart transactions involving electric energy from transactions in other commodities or substances which are subjects of intrastate commerce but may also move in interstate commerce.

Transmission of electric energy as referred to in the Federal Power Act must be viewed in the light of ordinary commercial relationships in the business world since it is the "business" of transmission and sale of electric energy which congress undertook to regulate. The decisions of this Court dealing with shipments of commodities by railroads are directly in point in determining whether a particular transmission of electric energy is in interstate commerce. It has been established by this court in a long line of cases that before a shipment is in interstate commerce there must be (1) "through and continuous movement from one state to another" *and* (2) "at the time that the movement is started, *an intention that the shipment shall be interstate* or foreign and this intention must be carried out. In a word, there must be the intent and the event." (*Oregon Washington R. & Nav. Co.* v. *Strauss & Co.*, 73 Fed. (2d) 912, 914. Certiorari denied 294 U. S. 723.) The record in this case is devoid of evidence establishing an intention on the part of Jersey Central to transmit electric energy in interstate commerce. The evidence is all to the contrary.

It is admitted by the court below that there is no way to determine how much electric energy generated by Jersey Central flowed from Public Service Company to Staten Island Company. By a process of deduction the court reached the conclusion that "it is certain that some did go to the Staten Island Company". It is also certain that if any energy generated by Jersey Central actually flowed to the

Staten Island Company, it was at the instance of Public Service and a matter wholly beyond the control of, and of no consequence to, the Jersey Central Company. It constituted no part of the "business" of Jersey Central Company. Finally there is no showing of any affiliation between the Jersey Central and Public Service Company and Staten Island Company which would indicate a design to defeat the jurisdiction of the Federal Power Commission through contractural arrangements among corporations created for this purpose.

Jersey Central is a New Jersey corporation doing business exclusively in that state. All its rates, practices, and regulations, etc., including its security issues are under regulation by the State of New Jersey. The contract covering arrangements with Public Service is bona fide, and is concluded as to Jersey Central with transmission over its line to a connection with Public Service at a point in New Jersey. Public Service may do as it chooses with the energy so received. There is no contract between Jersey Central and Staten Island, nor does any agreement between Public Service and Staten Island Company contemplate delivery of power to Staten Island which is generated by Jersey Central. The business in which Jersey Central is engaged is not one which Congress, in the Federal Power Act, found it necessary for the Federal government to regulate. Its business is fully subject to regulation by the state of New Jersey. The public interest would not be served by the superposition of federal regulatory authority on the completely adequate authority of the state over the business of Jersey Central.

To hold that Jersey Central should be subject to regulation by the Federal Power Commission is to completely ignore the legislative history of the Federal Power Act and the specific declaration of Congress in Section 201(a).

The Opinion of the Court Below Well Illustrates the Extent To Which State Jurisdiction Will Be Affected, If the Commission's Order Shall Be Sustained.

The extent to which Federal regulation will encroach upon State regulation, if the judgment below is sustained, is well illustrated by the opinion of the court below. The opinion points out that not only are Jersey Central, Public Service, and Staten Island so connected as to permit energy to flow from one system to another, but that the transmission systems of those companies in turn are connected "with other electric transmission systems covering the Southern part of New Jersey, the Southeastern part of Pennsylvania, the Northeastern part of Maryland (and) Delaware," and that additional reserve energy is "procurable from interconnected public utilities in Pennsylvania and New York." The opinion goes on to say:

> "Since these various electric utilities systems are interconnected, it is obvious that there will be some incidental or slop-over current passing through the various system connections including the bus-bar at the Mechanic Street Substation which comprise the connections between Jersey Central and Public Service on the one hand and Public Service and the Staten Island Company on the other." (R. 1118)

This slop-over movement of energy between connected systems is inevitable when the circuit is closed which causes the connection. The legal effect of such inevitable movement, when energy thus passes over a state line, according to the opinion below, is to make *all of the connected companies, over the lines of which the energy moves, public utilities subject to the Federal Commission.* Discussing the movement from Jersey Central, the court below said:

> "Once the circuit between the Jersey Central generating plant and the Staten Island Company was closed, *inevitably* electricity flowed from Jersey Central to the Staten Island Company. That result was * * * *unavoidable.* The fact that Jersey Central sold this

> electricity to Public Service rather than to Staten Island does not serve to put the flow out of commerce. . . . It is electricity which is transmitted from New Jersey to New York. *It follows that Jersey Central is a public utility within the meaning of Section 201(e) of the Act.*" (R. 1133. Italics supplied.)

It will be perceived that the judgment of the court below clearly means that these connected utilities, because of the "inevitable" movement of electric energy from system to system, and, in some measure, across state lines, are all subject to regulation by the Federal Commission.

The court will take judicial notice of the fact that the same interconnection of electric utilities is general throughout the country, and that the effect of the construction thus placed upon the Federal Power Act by the court below, if sustained, will be to bring under the regulation of the Federal Commission practically all of the public utilities of the several states.

We submit that such a construction does violence to the plainly stated purpose of the Congress.

Subjection of the Jersey Central to the Jurisdiction of the Federal Power Commission Will Inevitably Operate As an Encroachment Upon State Jurisdiction.

Recognizing that the declaration of Congress in Section 201 (a), limiting the jurisdiction conferred by the Act, may not be utterly disregarded, the court below undertook to construe the Act so as to give to the Federal Commission jurisdiction over Jersey Central without encroachment upon the jurisdiction of the State commissions. In its opinion the court said:

> "As we have indicated it was the intention of Congress in passing Part II of the Act to extend federal regulation to the transmission of electricity in interstate commerce. But by Section 201(a) Congress made it plain that such regulation was to extend only to those matters which were not subject to regulation by the

states. The petitioners point out that the transfer of stock with which we are concerned was approved by the Board of Public Utility Commissioners of New Jersey in the exercise of the authority granted to the Commissioners by the law of New Jersey, R. S. 1937, 48:2-13.

The sale of the Jersey Central stock to Jersey Power properly was subject to regulation by the State of New Jersey because Jersey Central was engaged in intrastate commerce in that it supplied electricity to local consumers (fol. 1143) within the State of New Jersey. The sale was subject to the jurisdiction of the Federal Power Commission because Jersey Central is a public utility within the meaning of Section 201(e). * * * The authority of the Board of Public Utility Commissioners of New Jersey must be deemed to be paramount in those matters which may affect the intrastate transmission of electricity and the authority of the Federal Power Commission must be deemed to be governing as to those matters which may affect the intrastate transmission of electricity and the authority of the Federal Power Commission must be deemed to be governing as to those matters which may affect the transmission of electric energy in interstate commerce. We cannot presume a conflict between the two regulatory bodies upon the issue of whether or not Jersey Power should have bought the stock of Jersey Central. No conflict is shown upon the present record and none may ever come into existence." (R. 1134)

As Mr. Justice Hughes said, in the *Shreveport Case*, 234 U. S. 342, 350, "It is of the essence of this power (of the Federal Government) that where it exists it dominates." See also the opinion of Mr. Justice Reed in *U. S.* v. *Appalachian Electric Power Co.*, 311 U. S. 377, 428.

The sale of Jersey Central stock to the New Jersey Power and Light Company was subject to regulation by the New Jersey Commission, unless State regulation was displaced by the enactment of the Federal Power Act. The New Jersey Commission has sanctioned the purchase. The Federal Commission has held the acquisition, already made, with such State Commission approval, unlawful, because not

approved by it. If this decision of the Federal Commission shall be sustained, and the acquisition is thereby invalidated, the New Jersey Commission has been ousted of its control, despite the intent of Congress to preserve that control.

Likewise, if energy transmitted by Jersey Central to Public Service is held to be sold "in interstate commerce" because some part of it moves instantaneously through the Public Service system to Staten Island, under the contractual arrangements between Public Service and Staten Island, then the sale by Jersey Central to Public Service, being held in interstate commerce, and being at wholesale for resale, is subject to regulation by the Federal Commission under Section 205. What then happens to the jurisdiction of the State commission, which, prior to the enactment of the Federal Power Act, had full control of such sales? If, because some slight part of the energy transmitted between Jersey Central and Public Service is transmitted by another company into another state, where it is consumed, the transaction is "in interstate commerce", and subject to Federal Commission regulation, then is not every sale of electric energy, by whatever electric utility the same is made, a sale "in interstate commerce", subject to Federal Commission regulation, if by reason of interconnections between the purchasing company and other companies, the energy purchased, in any manner whatsoever, shall happen to be transmitted into another state where it is consumed?

Whatever the answer may be to these questions, it is plain that the judgment below, if sustained, will give rise to unhappy conflicts between State and Federal regulatory agencies, and will impair or destroy State regulation in important respects in disregard of the plain purpose of Congress.

CONCLUSION.

The petition for the writ of certiorari should be granted to the end that the erroneous construction of the Federal Power Act by the Court below may be corrected and the erroneous judgment based thereon may be reversed.

Respectfully submitted,

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Supreme Court of the United States

OCTOBER TERM—1942

Nos. 299 and 329

JERSEY CENTRAL POWER & LIGHT COMPANY
Petitioner,

vs.

FEDERAL POWER COMMISSION
Respondent.

NEW JERSEY POWER & LIGHT COMPANY
Petitioner,

vs.

FEDERAL POWER COMMISSION
Respondent.

MEMORANDUM IN SUPPORT OF PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT FILED BY THE ATTORNEY GENERAL OF THE STATE OF CONNECTICUT

FRANCIS A. PALLOTTI,
Attorney General for the State of Connecticut
State Capitol
Hartford, Connecticut

September 30, 1942

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM—1942

Nos. 299 and 329

JERSEY CENTRAL POWER & LIGHT COMPANY,
Petitioner,

against

FEDERAL POWER COMMISSION,
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NEW JERSEY POWER & LIGHT COMPANY,
Petitioner,

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FEDERAL POWER COMMISSION,
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MEMORANDUM IN SUPPORT OF PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT FILED BY THE ATTORNEY GENERAL OF THE STATE OF CONNECTICUT

The undersigned, Attorney General of the State of Connecticut, respectfully requests that the Court grant certiorari in the two above captioned cases. The reason for the request on the part of the undersigned that certiorari be granted is because the questions involved in these two above captioned cases appear to be of extreme importance to the Public Utilities Commission of the State of Connecticut, and also to several public utility companies doing business in this State, two of which companies are presently engaged in litigation with the Federal Power Commission over questions similar to those involved in the two above captioned cases. In the opinion of the under-

signed, a decision by the Supreme Court of the United States of the two above captioned cases at this time would be helpful to the Public Utilities Commission of the State of Connecticut, and to public utility companies in Connecticut.

It is my understanding that the two above captioned cases in which the Court is requested to grant certiorari involve questions concerning the extent of the jurisdiction of the Federal Power Commission over public utility companies, which operate within a single state. Similar questions, I am informed, are involved in other pending cases. One of these is the case of *The Hartford Electric Light Company v. Federal Power Commission*, pending in the United States Circuit Court of Appeals for the Second Circuit, and another is the case of *The Connecticut Light and Power Company v. Federal Power Commission*, pending in the United States Court of Appeals for the District of Columbia. I am also informed that there is another case pending before the Federal Power Commission, known as In the Matter of *The Ohio Public Service Company*, Federal Power Commission Docket No. IT 5663.

In view of the importance of the matters involved in all of these cases, and the probability of further litigation on this question of the jurisdiction of the Federal Power Commission an authoritative decision by the Supreme Court of the United States would seem most desirable.

Respectfully submitted,

FRANCIS A. PALLOTTI,

Attorney General for the State of Connecticut.

Nos. 299 and 329.

IN THE

Supreme Court of the United States

OCTOBER TERM—1942.

No. 299.

JERSEY CENTRAL POWER & LIGHT COMPANY,
Petitioner,

v.

FEDERAL POWER COMMISSION,
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NEW JERSEY POWER & LIGHT COMPANY,
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v.

FEDERAL POWER COMMISSION,
Respondent.

BRIEF FOR THE STATE OF NEW JERSEY AS *AMICUS CURIAE.*

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IN THE

Supreme Court of the United States

OCTOBER TERM—1942.

JERSEY CENTRAL POWER & LIGHT COMPANY, Petitioner, *v.* FEDERAL POWER COMMISSION, Respondent.	No. 299.
NEW JERSEY POWER & LIGHT COMPANY, Petitioner, *v.* FEDERAL POWER COMMISSION, Respondent.	No. 329.

BRIEF FOR THE STATE OF NEW JERSEY AS *AMICUS CURIAE*.

Foreword.

The State of New Jersey as *Amicus Curiae* respectfully submits this brief, complementary to the brief submitted by the petitioners, for the protection and preservation of the powers of the State to regulate electric utilities. The State adopts the detailed "Statement of Facts" made in petitioners' brief.

Except as clarification in the statement of the State's position requires, repetition of statements of fact and law contained in the brief of petitioners is herein avoided.

Jersey Central Power & Light Company is hereinafter referred to as "Jersey Central"; New Jersey Power & Light Company as "New Jersey Power"; Public Service Electric and Gas Company as "Public Service"; the Staten Island Gas & Electric Company as "Staten Island"; the Federal Power Act[1] as "Act" and the Federal Power Commission as "Commission".

Italics used in quoted material are not in the original and are supplied for emphasis.

The Issue Presented to This Court.

The Federal Power Commission by a determination made by it found that: "The acquisition of 341,350 shares of the common capital stock of Jersey Central Power & Light Company by New Jersey Power & Light Company was the acquisition by a public utility of the securities of another public utility within the meaning of Section 203 (a) of the Federal Power Act; that New Jersey Power & Light Company having acquired such securities without first having secured an order of the Commission authorizing it to do so, has acquired such securities in violation of the express provisions of Section 203 (a) of the Federal Power Act" (R. 940).

This determination by the Commission rested on the following finding: "The transmission facilities owned and operated by Jersey Central Power & Light Company ex-

[1] 49 Stat. 847, 16 U. S. C. A. § 791a.

tending from its substation adjacent to its generating plant in South Amboy, New Jersey, to the south bank of the Raritan River in said State are transmission facilities utilized for the transmission of electric energy in interstate commerce, and therefore Jersey Central Power & Light Company is a 'public utility' within the meaning of the Federal Power Act" (R. 939-940).

The court below on petitions to review this determination, affirmed the determination (R. 1135).

The State of New Jersey submits that the court below in so affirming the determination of the Commission erred and that Jersey Central is not a public utility within the meaning of Section 201 (e) or of Section 203 (a) of the Act[2] and that the acquiring of the 341,350 shares of the common stock of Jersey Central by New Jersey Power without first having secured an order of Federal Power Commission authorizing it to do so, was not a violation of Section 203 (a) of the Act.

The issue submitted is not as to the extent of the constitutional power of Congress in regulation of interstate commerce. The issue submitted is solely as to the extent to which Congress exerted such power in enacting the Federal Power Act.

The Statute.

The provisions of the Act defining the term "public utility" and the jurisdiction of the Federal Power Commission are as follows:[3]

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[2] 49 Stat. 848, 849, 16 U. S. C. A. §§ 824(e), 824b(a).
[3] 49 Stat. 847, 16 U. S. C. A. § 824.

"Section 201 (a) It is hereby declared that the business of transmitting and selling electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation of matters relating to generation to the extent provided in this Part and the Part next following and of that part of such business which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States.

"(b) The provisions of this Part shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line. The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this Part and the Part next following, over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter.

"(c) For the purpose of this Part, electric energy shall be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof; but only insofar as such transmission takes place within the United States.

"(d) The term 'sale of electric energy at wholesale' when used in this Part means a sale of electric energy to any person for resale.

"(e) The term 'public utility' when used in this Part or in the Part next following means any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part."

The Facts.

The State for the purposes of this brief has as before noted, adopted the "Statement of Case" made in the brief of the petitioners.

However, the Court's attention is nevertheless specifically directed to the following facts.

Jersey Central is a corporation organized and operating in the State of New Jersey in generating, transmitting and distributing electric energy to the public.

New Jersey Power is likewise a corporation so organized and operating in the State of New Jersey.

Public Service is also a corporation so organized and operating in the State of New Jersey.

Staten Island is a corporation organized and so operating in the State of New York.

It is admitted for the purpose of this argument that New Jersey Power, Public Service and Staten Island each is a "public utility" within the meaning of the Act.

The State of New Jersey submits that Jersey Central is not a "public utility" within such Act.

The lines and franchise area of Jersey Central are confined to the State of New Jersey. Neither its lines nor its franchise area extend to the border of another state (R. 296). All of its customers are in New Jersey (R. 274). It is in no wise affiliated with either Public Service or Staten Island.

Jersey Central has no contractual relation with Staten Island. Its facilities are not connected with those of Staten Island.

Jersey Central owns and operates a generating plant for the production of electricity at South Amboy, in New Jersey (R. 273). A transmission line seven-eighths of a mile in length runs from its South Amboy generating plant to metering equipment on the south bank of the Raritan River in New Jersey, at which point Jersey Central has a connection with Public Service. At irregular intervals Jersey Central, under separate, non-obligatory arrangements, sells and delivers energy to Public Service at this point of interconnection in New Jersey, and at this point in New Jersey, Public Service receives such energy and conducts it in its own lines under the Raritan River to its Mechanic Street Station at Perth Amboy, New Jersey (R. 286).

The facilities beyond this point of connection on the south bank of the Raritan River in New Jersey are neither owned nor operated by, nor are they subject in any wise to the control of, Jersey Central. The energy originated by Jersey Central in New Jersey and delivered by Jersey Central to Public Service at the south bank of the Raritan River in New Jersey, through the connection at that point, is not in any wise subject to the control of Jersey Central after such delivery (R. 290).

The physical conditions at the bus bar at the Public Service substation at Mechanic Street in Perth Amboy, New Jersey, a distribution center in its electric system, are described in detail in petitioners' brief (p. 10).

Jersey Central has, as above indicated, a verbal understanding with Public Service, terminable at will (R. 285), under which at irregular intervals Jersey Central sells energy to Public Service at the above described interconnection in New Jersey. Jersey Central sells no energy to Staten Island. It has no contractual relations, formal or informal, with Staten Island (R. 285, 292-3, 332, 453-4). There are no commercial relations between Staten Island and Jersey Central.

However, Staten Island has a line connected to a submarine cable which runs under the Arthur Kill, a body of water separating New Jersey from New York (R. 348). At midchannel, the cable is connected to a Public Service line which line leads into Mechanic Street substation of Public Service at Perth Amboy, New Jersey.

Through this connection between the facilities of Public Service and Staten Island emergency and economy flow energy passed between Public Service and Staten Island.

The evidence below clearly established that neither by design nor intent of either Jersey Central, Public Service or Staten Island was energy originating with Jersey Central transmitted to Staten Island. On the contrary it clearly showed that there were seven substations of the Public Service other than the Mechanic Street Station through which emergency and economy power might be and was furnished by Public Service to Staten Island (R. 103, 454).

By observation and measurement conducted on the property of Public Service and of Staten Island, and the reading and study of "logs" and by mathematical calculations (none of which Jersey Central could have made, since it had no right of entry upon the property of, or access to the records of either), the Commission found that there were *moments of time* when energy generated by Jersey Central escaped to Staten Island from Public Service lines. This energy could only have been slop-over energy, escaping while Public Service and Staten Island were endeavoring to keep their interconnections in balance and thereby prevent *any* flow.

"Slop-over energy" the court below finds to be an *"electric phenomenon* which consists in an *instantaneous, involuntary* ebb and flow where there is a physical connection, otherwise unused between two systems. Where such an unused connection exists the two systems are normally 'in balance'. When there is a sudden demand for more energy made on one of the systems, its generators are speeded up to meet the demand. There is a tendency, however, for the system on which the immediate demand is made, to draw on the one system with which it is connected for the *instantaneous* period between the demand and the compensating generating speed up" (R. 1118).

Summary of Argument.

I. Jersey Central is not a "public utility" within the meaning of that term as used in the Federal Power Act.

(a) The background of the Act in the decisions of this Court indicates that the prior law contained a "gap" in

that part of the business of selling and transmitting electric energy which consisted of a direct sale or transmission across a state line. The states regulate certain aspects of this transaction but the situation involved in the *Attleboro* case[3a] could not be so regulated.

(b) The Act, when read and construed in the light of its legislative background and history, should be applied only to cases where Federal regulation was necessary in order to close the gap which State regulation could not affect. The legislative history of the Act demonstrates that this was the sole purpose for its enactment.

(c) The Act should be read, construed and applied in the light of the fact that, construed as it was by the court below, it vests in a Federal Commission pervasive control over myriads of local businesses in matters heretofore left to local control and that such construction of such far-reaching import can only rest on a clear manifestation of congressional intent. The clearly manifested intent of Congress was not to delegate to the Commission such broad powers. The contrary construction by the court below demonstrates the error of that court's judgment.

(d) The Act should be construed, appraised and applied in the light of the rule of statutory construction under which congressional intention to displace local laws in the exercise of the commerce powers is not to be inferred unless clearly indicated by those considerations which are persuasive of the statutory purpose. Such considerations in the case of the Federal Power Act demonstrate that Congress did not intend to displace local laws or regulations.

[3a] 273 U. S. 83.

(e) The Act should be read, construed and applied in the light of the fact that when Congress has enacted legislation intended to exert its power under the commerce clause to the full and to extend such power to matters local in nature but affecting interstate commerce, Congress has used clear and explicit language to indicate such intent. In the Federal Power Act, Congress, by clear and explicit language, indicated that it did not intend to exert such far-reaching power.

(f) The words of the Act unaided by any rules of statutory construction make clear the intent of Congress to limit the jurisdiction of the Commission to transactions and activities in, and facilities for, interstate commerce in the narrow and literal sense of the words "in" and "for" interstate commerce.

(g) Jersey Central has no facilities for transmission of electric energy from a state and is not a "public utility" within the meaning of the Act and neither it, its business nor facilities are subject to the jurisdiction of the Commission. Congress did not intend that the mere interconnection of local facilities with facilities of other independent persons having an interstate character should subject the first mentioned facilities to the jurisdiction of the Commission. Nor did Congress intend that facilities should be subject to the jurisdiction of the Commission where such facilities were not intended to be used by the owner or operator thereof for interstate purposes.

(h) Congress did not intend that dual control by the State and Federal Government should be the commonplace type of regulation. Congress intended that the regulatory powers of the states should be completely preserved without

limitation by the Federal regulatory body. Dual control, where necessary, was expressly provided for. It is not necessary and was not provided for with respect to the facilities of Jersey Central.

II. If it be determined that Jersey Central is a "public utility" within the meaning of the Act, nevertheless, the transaction here in question is not within the jurisdiction of the Commission. The transaction is one subject to regulation by the State and the State has legislatively and administratively acted in regulation thereof.

ARGUMENT.

POINT I.

Jersey Central is not a "public utility" within the meaning of that term in the Federal Power Act.

(a)

The background of the Federal Power Act in the decisions of this Court.

The Act should be read, construed and applied in the light of the background of the judicial decisions marking off interstate commerce from intrastate commerce, and which disclosed a field of legislative regulation which the States could not reach and in which Congress had not legislated.

This background was provided in particular by the following decisions of this Court.

In *Public Utilities Commission of Kansas* v. *Kansas Natural Gas Co.*, 249 U. S. 236 (1919), the Kansas Natural

Gas Company was engaged in producing natural gas in Oklahoma and Kansas and in making sale thereof and transporting the same to local distributing companies in Kansas and Missouri. Under the contracts with these local distributing companies the pipe line company received a proportion of the gross revenues collected by the local companies from their customers.

Receivers of the Kansas Company petitioned the Kansas and Missouri Commissions for increases in the rates charged by the local distributing companies. The full amount of the desired increases was denied. Suit was then brought alleging that the State Commissions had imposed rates unduly burdening interstate commerce and that they were confiscatory.

It was unquestioned that the business of the Kansas Company—the transporting of natural gas and sale thereof to local distributing companies as above described—was interstate commerce.

The court below found that the rates established by the State Commissions imposed a burden on interstate commerce.

This court though accepting the conclusion that the business of the Kansas Company was interstate commerce—held that the sale of gas by the local distributing companies to their own consumers was not interstate commerce and that the State regulation of these local distributing companies was not subject to attack as burdening interstate commerce.

In *Pennsylvania Gas Company* v. *Public Service Commission of New York*, 252 U. S. 23 (1920) the Pennsylvania

Gas Company engaged in transmitting natural gas from Pennsylvania into New York, where it rendered a local utility service to consumers in certain New York municipalities including Jamestown. The Public Service Commission of New York undertook to regulate the local gas rates in Jamestown. The Pennsylvania Company resisted, contending that its business was interstate and not subject to state control.

Though there the transmission was a single and continuous movement from the source of supply in Pennsylvania to the consumers located in New York, and though this court held that the entire movement was interstate commerce, this court nevertheless held that the matters regulated were fundamentally local in nature and appropriate objects of concern and regulation by the State in the absence of federal regulation.

In *Missouri* v. *Kansas Natural Gas Co.*, 265 U. S. 298 (1925) the Kansas Company having failed, as above indicated, in its effort to obtain added revenue through increase in rates for gas charged by it to local distributing companies, endeavored to increase its earnings directly by increasing its wholesale price to the local distributing companies. It endeavored to effect such increase in Missouri without the consent of the Public Service Commission of that State and in Kansas notwithstanding the adverse action of the Commission of that State. The issue involved concerned the right of the States to control the wholesale price at which an interstate pipe line company furnished gas to local distributing companies. The claim of the States to the right to regulate the wholesale rates was predicated on the proposition that the business was essential to the

operation of the local public utilities; that since Congress had not acted and if the States did not act, the business would be wholly unregulated and that in the absence of action by Congress, it was within the competency of the States to regulate the wholesale prices.

This court found that the sale and delivery of the gas to the local distributing companies was a part of the interstate movement; that an aspect of interstate commerce essentially local, rather than national, in character was not involved, and that the States consequently were without power to regulate even in the absence of Congressional action.

This court said: "It is as though the [State] commission stood at the state line and imposed its regulations upon the final step in the process at the moment the interstate commodity entered the state, and before it had become part of the general mass of property therein."

Finally in 1927 in *Public Utility Commission* v. *Attleboro Steam & Electric Co.*, 273 U. S. 83, a situation essentially similar to the situation involved in the *Pennsylvania Gas Company* case, *supra*, came before this court.

In the *Attleboro* case, the Narragansett Electric Lighting Company engaged in chief in supplying electricity at retail in Providence, Rhode Island had entered into a twenty year contract with the Attleboro Company, a Massachusetts corporation, to supply all of the Attlehoro company's electric requirements at a basic rate, delivery to be made at the State line.

The Rhode Island Commission found the contract rate to be unreasonably low, interfering with the Narragansett Company's full performance of its duty to other customers and ordered a new schedule which it found would yield only a reasonable return.

The Supreme Court of Rhode Island reversed the State Commission's order.

This court, affirming, held that the sale was a transaction in interstate commerce and that the regulation of the wholesale rate fixed thereby was not within the constitutional capacity of Rhode Island, though Congress had not acted to occupy this field of regulation.

It followed that the State of origin was in no better position than the State of destination to regulate the wholesale rates for energy in interstate commerce.

Here then was a gap in regulation—the State had no constitutional capacity to act, and Congress had not acted.

It was the gap disclosed by these decisions that Congress sought to close.

It is submitted that it was the intent of Congress, in enacting the Act here considered, legislatively to draw the line marking off interstate commerce from intrastate commerce where this court in this line of decisions had drawn it and to close the gap in regulation which was thereby revealed—a gap caused by the constitutional incapacity of the States to act and the failure of the Congress to act.

(b)

The Act should be read and construed and applied in the light of its legislative background and history.

The brief of the petitioners (pp. 42-55) sets out the legislative history of the Act comprehensively. Repetition here would not be justified.

The court's attention is directed to the fact that while the framers of the bill as originally introduced designed to give the Act, in the regulatory jurisdiction that it conferred, the widest scope possible under the Constitution except as to rates, there is clearly manifested in every stage of the legislative progress of the bill, the intent of Congress on the contrary to do no more than close the gap in regulation disclosed by the line of cases set out above under (a).

As confirming the State's claim of such Congressional intent attention is directed to the fact that the bill as originally drawn provided in Section 201 (a):

> "The provisions of this title shall apply to the transmission and sale of electric energy in interstate commerce and to the *production* of energy for such transmission and sale, but shall not apply to the retail sale of energy in local disfribution. The Commission shall have jurisdiction over all facilities for such transmission, sale, and *or production of energy by any means and over all facilities connected therewith as parts of a system of power transmission situated in more than one State* • • • (S. 1725, 74th Cong. 1st Sess., February 6, 1935).

The evidence afforded of the difference in intention between the framers of the bill as originally introduced, and

that of Congress in enacting the Act, by the contrast between Section 201 (a) of the bill as originally introduced and Section 201 as enacted, is so striking that, though it involves repetition, the paralleling provisions of Section 201 of the Act are here again set out:

> "(b) The provisions of this Part shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but shall not apply to any other sale of electric energy or deprive a State or State Commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a state line. The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this Part and the Part next following, over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter."

As Section 201 finally emerged in the Act "production" facilities and other facilities for transmission or sale "connected" with a system of power transmission as parts thereof situated in more than one State were excluded from the facilities subject to the Commission's jurisdiction.

The decision in the court below in effect restores these facilities to the jurisdiction of the Commission, as will be hereinafter shown.

Section 201 of the original bill (H. R. 5423) provided "The provisions of this title shall apply to the transmis-

sion and sale of electric energy in interstate commerce and to the production of energy for such transmission and sale, except where such electric energy is sold for use within the State in which it is generated."

As finally enacted Section 201 (a) provides that "* * * Federal regulation of matters relating to generation to the extent provided in this Part and the Part next following and that part of such business which consists of the transmission of electric energy in interstate commerce and the sale at wholesale in interstate commerce is necessary in the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States."

Section 201 of the bill as originally introduced indicated on its face a purpose to exert to the utmost the constitutional power of Congress to regulate interstate commerce, including the regulation of matters merely relating to or affecting interstate commerce.

As enacted Section 201 clearly abandons this apparent purpose and puts such abandonment beyond question by providing that the narrowed Federal regulation thereby exerted shall extend "only to those matters which are not subject to regulation by the States." The reference to Federal regulation in this section can only refer to the Federal regulation exerted by the Act.

Because of the background of the Act in the decisions of this Court and the legislative background and history of the Act, an application of the fundamental rule of statutory construction requiring that the old law, the mischief and the remedy be considered, is called for.

(c)

The Act should be read, construed and applied in the light of the fact that construed as it was by the court below, it vests in a federal commission pervasive control over myriads of local businesses in matters heretofore left to local control and that such construction of such far reaching import can only rest on a clear manifestation of Congressional intent.

Again, it should be noted that in the Act under consideration Congress explicitly declared that the Federal regulation thereby established should "extend only to those matters which are not subject to regulation by the States".

How pervasive the construction of the act by the court below is, is indicated by the Seventeenth Annual Report of the Commission (1937). According to that report *at least* sixty per cent of the total utility assets within the United States are "clearly" within the jurisdiction of the Commission. The annual report referred to asserts that of the "1,511 privately owned electric utilities with total claimed capital assets of approximately 17 billion dollars * * * 292 with total claimed capital assets of approximately 10 billion dollars clearly fall within the scope of" the Commission and that "an additional 261 of which, with the total claimed capital assets of approximately 3 billion dollars, have been classified as 'indeterminate' in the absence of more exact information as to their interstate character". (p. 10.)

Among other things, the construction of the Act contended for by the Commission and sustained by the court below has, under the guise of providing primarily for the

effective regulation of wholesale rates in interstate commerce, vested the Commission with power, according to the Commission, "clearly" to fix a rate base for more than sixty per cent of the operating assets (including assets for local generation and distribution) of the electric utility industry of the United States.

In *Interstate Commerce Commission* v. *Cincinnati, N. O. & Texas Pac. Rwy. Co.*, 167 U. S. 479, this court in holding that Congress has not conferred upon Interstate Commerce Commission power of prescribing rates, said (at p. 494):

> "The importance of the question cannot be overestimated. Billions of dollars are invested in railroad properties. Millions of passengers, as well as millions of tons of freight, are moved each year by the railroad companies, and this transportation is carried on by a multitude of corporations working in different parts of the country and subjected to varying and diverse conditions. • • •
>
> "The question debated, is whether it [Congress] vested in the Commission the power and the duty to fix rates; and the fact that this is a debatable question, and has been most strenuously and earnestly debated, is very persuasive that it did not. The grant of such a power is never to be implied. The power itself is so vast and comprehensive, so largely affecting the rights of carrier and shipper, as well as indirectly all commercial transactions, the language by which the power is given had been so often used and was so familiar to the legislative mind and is capable of such definite and exact statement, that no just rule of construction would tolerate a grant of such power by mere implication."

In *Federal Trade Commission* v. *Bunte Bros., Inc.*, 312 U. S. 349, this court said, (at pp. 354-5):

> "The construction of Section 5 [of the Fair Trade Act] urged by the Commission would thus give a federal agency pervasive control over myriads of local businesses in matters heretofore traditionally left to local custom or local law. • • • An inroad upon local conditions and local standards of such far-reaching import as is involved here, ought to await a clearer mandate from Congress. • • • This case presents the narrow question of what Congress did, not what it could do. And we merely hold that to read 'unfair methods of competition in (interstate) commerce' as though it meant 'unfair methods of competition in any way affecting interstate commerce', requires, in view of all relevant considerations, much clearer manifestation of intention than Congress has furnished."

The term "public utility" is defined by the Act to mean "any *person* who owns or operates facilities subject to the jurisdiction of the Commission."[4] The Act defines "person" as "an individual or a corporation."[5]

It follows, under the construction given by the court below, that if a corporation, engaged in manufacture and sale of its products exclusively in New Jersey, generated energy for such manufacture, sold and transmitted its surplus energy to Public Service as Jersey Central does in the instant case and in equally insignificant amounts and if energy generated by it found its way as slop-over, as here, to the lines of Staten Island, this local manufacturing

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[4] Sec. 201(e), 49 Stat. 848, 16 U. S. C. A. § 824(e).
[5] Sec. 3(4), 41 Stat. 1063, 16 U. S. C. A. § 796(4).

company, owning and operating facilities which, under the construction of the court below, being facilities for transmission of electric energy in interstate commerce, would fall within the jurisdiction of the Commission and would, as to exercise of its corporate powers as to issuance of its securities, merger and consolidation, sale or other disposition of its property, choice of directors and officers, etc., be subject to the regulatory power of the Commission.

So, too, it follows under the construction given by the court below that no sale or transmission of electric energy can be made in intrastate commerce, (and that every sale or transmission is in interstate commerce) if the vendee or receiver, or any person into whose control any such energy shall subsequently come, no matter how remote in the chain from the original seller or transmitter, so uses the same as to permit any part thereof to flow across a state line, even though such flow is only the momentary, instantaneous flow caused by the phenomenon of slop-over.

The wide reach of the Act as construed by the court below reinforces the argument that such construction was not intended by Congress.

(d)

The Act should be construed, appraised and applied in the light of the rule of statutory construction under which Congressional intention to displace local laws in the exercise of the commerce power is not to be inferred unless clearly indicated by these considerations which are persuasive of the statutory purpose.

This rule of construction is so firmly settled that extended citation of authority is not justified.

In the *Minnesota Rate Cases*, 230 U. S. 352, this court in holding that in prescribing intrastate rates the State exercised authority appropriate to its territorial jurisdiction and not "opposed to any action thus far taken by Congress", said: "* * * it is for Congress to determine within the limits of its constitutional authority over interstate commerce and its instruments the measure of the regulation it should supply. It is the function of this court to interpret and apply the law already enacted, but not under the guise of construction to provide a more comprehensive scheme of regulation than Congress has decided upon. Nor in the absence of Federal action, may we deny effect to the laws of a State enacted within the field which it is entitled to occupy until its authority is limited through the exertion by Congress of its paramount constitutional power."

In *Illinois Central R. Co.* v. *Public Utility Comm.*, 245 U. S. 493 this court said: "In construing federal statutes enacted under the power conferred by the commerce clause of the Constitution the rule is that it should never be held that Congress intended to supersede or suspend the exercise of the reserved powers of a State, even where that may be done, *unless and except so far as, its purpose to do so is clearly manifested.*"

(c)

The Act should be read, construed and applied in the light of the fact that when Congress has enacted legislation intended to exert its power under the commerce clause to the full and extend such power to matters local in nature but "affecting" interstate commerce, Congress has used clear and explicit language to indicate such intent.

In *Kirschbaum* v. *Walling*, 316 U. S. 517, this court said (at p. 522): "The history of Congressional legislation regu-

lating not only interstate commerce as such but also activities intertwined with it, justifies the generalization that, when the federal government takes over such local radiations in the vast network of our national economic enterprise and thereby radically readjusts the balance of state and national authority those charged with the duty of legislating are reasonably explicit and do not entrust its attainment to that retrospective expansion of meaning which properly deserves the stigma of judicial legislation."

In addition to such Acts of Congress referred to in petitioners' brief (pp. 40, 41) the following Acts are brought to the attention of the court.

The Anti-Racketeering Act[6] extends explicitly to "*any person who in connection with or in relation to any act in any way or degree affecting trade or commerce or in any article or commodity moving or about to move in commerce*" does the acts prohibited.

To make manifest its intent beyond all doubt, Congress in that statute defined the term "trade or commerce" to mean trade or commerce between any States "*and all other trade or commerce over which the United States has constitutional jurisdiction*".

The Grain Future Act after defining interstate commence generally, proceeded to provide[7]:

> "(b) For the purposes of this act (but not in anywise limiting the foregoing definition of interstate commerce) a transaction in respect to any article

[6] 48 Stat. 979, 18 U. S. C. A. § 420a.
[7] 42 Stat. 998, amended by 49 Stat. 1491, 7 U. S. C. A. § 3.

shall be considered to be in interstate commerce if such article is part of that *current* of commerce usual in the grain trade whereby grain and grain products and by-products thereof are sent from one state with the expectation that they will end their transit, after purchase, in another, including in addition to cases within the above general description, all cases where purchase or sale is either for shipment to another state, or for manufacture within the state and the shipment outside the state of the products resulting from such manufacture. Articles normally in such *current* of commerce shall not be considered out of such commerce through resort being had to any means or device intended to remove transactions in respect thereto from the provisions of this act. * * *"

The Interstate Commerce Act[8] conferring power over intrastate rates affecting interstate commerce now provides:

"Sec. 13, par. (4) *Duty of commission where State regulations result in discrimination.* Whenever in any such investigation the commission, after full hearing, finds that any such rate, fare, charge classification, regulation, or practice causes any undue or unreasonable advantage, preference or prejudice as between persons or localities in intrastate commerce on the one hand and interstate or foreign commerce on the other hand, or any undue, unreasonable or unjust discrimination against interstate or foreign commerce, which is forbidden and declared to be unlawful it shall prescribe the rate, fare, or charge, or the maximum or minimum, or maximum and minimum, thereafter to be charged, and the classification, regulation or practice there-

[8] 24 Stat. 379, as amended, 49 U. S. C. A. § 1.

after to be observed, in such manner as, in its judgment, will remove such advantage, preference, prejudice, or discrimination. Such rates, fares, charges, classifications, regulations, and practices shall be observed while in effect by the carriers parties to such proceeding affected thereby, *the law of any State or the decision or order of any State authority to the contrary notwithstanding.*"

In the National Labor Relations Act[9], Congress not merely defined "commerce" as meaning "trade, traffic, transportation or communication among the several states," but defined as well the term "affecting commerce" as meaning *in* commerce, or burdening or obstructing commerce, or the free flow of commerce, or having led or tending to lead to a labor dispute burdening or obstructing commerce or the free flow of commerce".[10]

(f)

The words of the Act unaided by any rules of statutory construction make clear the intent of Congress to limit the jurisdiction of the Commission to transactions and activities in, and facilities for, interstate commerce in the narrow and literal sense of the words "in" and "for" interstate commerce.

The act applies to "facilities for the transmission of electric energy *in* interstate commerce and to the sale of electric energy at wholesale *in* interstate commerce".

The Commission is given "jurisdiction over all facilities for *such* transmission or sale of electric energy". The facilities over which jurisdiction is so given are expressly

[9] 49 Stat. 449, 29 U. S. C. A. § 151.
[10] 49 Stat. 451, 29 U. S. C. A. § 152(7).

limited to facilities *for* transmission, or sale at wholesale, of electric energy *in* interstate commerce.

The Act declares that electric energy shall "be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof * * *" and declares that "sale of electric energy at wholesale" means a sale of electric energy to any person for resale."

The Act defines "public utility" as meaning "any person who owns or operates facilities subject to the jurisdiction of the Commission."

The court below (correctly, it is submitted) found that it was "beyond dispute that Jersey Central itself sells no electricity directly in interstate commerce." Jurisdiction of the Commission over Jersey Central must therefore depend upon whether that company owns and operates facilities for transmission of electric energy *in* interstate commerce within the meaning of the Act.

The words of the Act indicate the intent of Congress to limit the jurisdiction of the Commission to wholesale sales, activities and facilities for transmission in interstate commerce and not to extend such jurisdiction to sales, activities and facilities merely connected or intertwined with, or related to or "affecting", interstate commerce.

The Act expressly provides that it shall apply to the sale of electric energy at *wholesale in interstate commerce*, *"but shall not apply to any other sale of electric energy."*

That intent is also indicated by the provision of the Act that the jurisdiction of the Commission shall not extend except as specifically provided "over facilities used for the generation of electric energy or over facilities used in local

distribution or only for the transmission of electric energy in intrastate commerce or over facilities for the transmission of electric energy consumed wholly by the transmitter."

That intent is further indicated by the declaration of the Act that Federal regulation "of that part of" the business of transmitting and selling electricity for ultimate distribution to the consumer "which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest."

The provisions of the Act above set out would seem to leave little room for doubt that Congress intended to confine the jurisdiction conferred on the Commission to sales, activities in, and transmission facilities for, interstate commerce and not to extend it to sales, activities or facilities merely connected or intertwined with, related to or affecting, interstate commerce. In fact, by Section 201 (b) Congress stated that the Commission "shall not have jurisdiction * * * over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce * * * *."

Finally to leave no room for doubt as to its intention Congress in the Act declared: "Such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States."

Irrespective of what other scope or effect this provision may have, it is completely persuasive of the intent of Congress to so limit the jurisdiction conferred to sales, activities *in*, and facilities *for* interstate commerce.

If the words of the Act in themselves leave any room for doubt that the intent of Congress was to limit the jurisdiction conferred on the Commission as above argued, such doubt is completely set at rest through a reading of the words of the Act in the light of its legislative history; its background in the adjudications of this court, and the settled rules of statutory construction.

(g)

Jersey Central has no facilities for transmission of electric energy from a State and is not a "public utility" within the meaning of the Act and neither it, its business nor facilities are subject to the jurisdiction of the Commission.

The business of the Jersey Central is wholly made up of intrastate transactions and activities.

No part of its business consists of transmission of electric energy in interstate commerce within the meaning of the Act. Nor does it own or operate facilities for transmission of such energy in interstate commerce, within the meaning of the Act.

Jersey Central is organized under the laws of the State of New Jersey. It generates electric energy in New Jersey; its lines and its franchise area are wholly within that State and do not extend to the border of another State; all of its customers are in that State; and it neither sells nor destines any electricity outside that State.

The mere physical connection *within New Jersey* of a line of Jersey Central with a line of Public Service does not constitute the connecting line of Jersey Central a facility for interstate commerce even though Public Service, prin-

cipally engaged in transmission and distribution intrastate in New Jersey, is also engaged in transmission interstate.

As noted under Point I, (b) above (at p. 16) the bill as introduced extended to the "*production*" of electric energy for transmission and sale in interstate commerce. This provision did not find its way into the Act. As introduced the bill extended to all *facilities* for the "production" of energy for transmission in interstate commerce. This provision also did not find its way into the Act as enacted.

As introduced the bill applied to all facilities "*connected*" with facilities for the transmission, sale and/or production of energy in or for interstate commerce as parts of a system of power transmission situated in more than one State. This provision too did not find its way into the act.

It would seem clear, then, that mere physical connection of the facilities of one company with the facilities of another company will not, under the Act, alone constitute the first company a public utility within the Act, although the second company is a public utility within the Act. In effect the decision below reads anew into the Act these provisions which Congress so rejected.

The court below found that Jersey Central did not sell at wholesale in interstate commerce (R. 1128). Sale involves transmission and delivery. If the sales and deliveries as part of such sales did not constitute sales in interstate commerce it is difficult to see how the facilities through which such sales are executed in transmission and delivery within the State of New Jersey can be said to be facilities for interstate commerce and such transmission and delivery be said to constitute transmission in interstate commerce.

The clear purpose of the Act was to limit the jurisdiction of the Commission to transmission in interstate commerce; the facilities for such transmission and transactions and activities of the transmitter.

Jersey Central does not transmit in interstate commerce. Transmission in interstate commerce involves a designed, intended activity in interstate commerce. Ownership or operation of facilities for such transmission involves ownership or operation of facilities for the purpose of transmission in interstate commerce.

Analysis of the provisions of Section 201, relating to the definitions of "public utility" and "transmission of electric energy in interstate commerce" and the description of "facilities subject to the jurisdiction of the Commission", in effect reduces the question here to be decided to the simple one of whether this seven-eighths mile line is a facility "for transmission from a state". The State of New Jersey submits that it is not. The word "for" implies design or intent. The word "transmission" implies an affirmative act of sending across. The words "from a state" imply the requirement of an intended destination.

This facility is only "for" transmission within the state, from Jersey Central at South Amboy to Public Service. The "transmission" is a sending to Public Service and no further. Any energy generated by Jersey Central which was found in Staten Island was slop-over, it was not "transmitted" from New Jersey by any one but momentarily escaped from the state despite attempts of Public Service and Staten Island to prevent it. In any event energy reaching Staten Island is not sent there by any affirmative act of Jersey Central. It could not be (R. 516).

Accordingly this facility is not one "for the transmission of electric energy" "from a state". Rather is it one "used * * * only for the transmission of electric energy in intrastate commerce" and hence expressly excluded from the jurisdiction of the Commission under subsection (b) of Section 201. It is a transaction wholly within the jurisdiction of the State of New Jersey and subject to regulation by that state.

Jersey Central engaged in no designed or intended activity in interstate commerce. It neither owns nor operates facilities for the purpose of any designed or intended activity in interstate commerce.

If any energy generated in Jersey Central reached New York it did so undesigned by and unknown to Jersey Central and through a mere electric phenomenon, and by means of and over facilities neither owned nor operated or in any way under the control of Jersey Central.

In this connection what this court said in the following cases has point.

In *McCluskey* v. *Maryville & N. R. Co.*, 243 U. S. 36, this court said:

> "The defendant Mill Company simply carried over its own road, on its own cars, its own goods to a market where it sold and delivered them. It had no concern with the subsequent disposition of them. It was under no obligation to deliver them to another carrier, and no other carrier was under obligation to deliver them, to receive them or to carry them further. The selling of the poles after the first sale by the Mill Company, or *whether they were going outside of the State,* depended upon chance or the

exigencies of the trade. The movement of the poles did not become interstate commerce until, *by the act of the purchasers thereof*, the poles were started on their way to their destination, in another State or country."

In *Superior Oil Co.* v. *Mississippi*, 280 U. S. 390, this court said:

"But here the gasoline was in the hands of the purchaser to do with what he liked, and there was nothing that in any way committed it to sending the oil to Louisiana except its own wishes. If it had bought bait for fishing that it intended to do itself the purchase would not have been in interstate commerce because the fishing grounds were known by both parties to be beyond the State lines. A distinction has been taken between sales made with a view to a certain result, and those made simply with indifferent knowledge that the buyer contemplates that result."

The sweeping scope of the dual control by Nation and State which would result from the construction of the Act by the court below, and the confusion which would arise therefrom, in itself indicates that Congress did not intend to bring a company such as Jersey Central within the jurisdiction of the Commission and that Congress did not intend to make such dual control flow from a mere physical connection and an electric phenomenon, instantaneous and of momentary duration.

The court below finding that Jersey Central was a public utility within the meaning of the Act concluded that it was subject to the dual control of the Commission and the State Commission.

Laying the Act and the New Jersey Public Utility Act[10a] side by side it appears that if the construction of the Act by the court below prevails, Jersey Central will be subject in the exercise of all of its ordinary corporate powers to dual control, including, among other powers, the sale, lease and other disposition of its facilities; the issuance of its securities and obligations; the application of the proceeds of issuance of its securities to any unauthorized purpose or in excess of the amount allowed; the purchase, taking and acquiring of securities; the merger and consolidation of facilities and franchises; the capitalization of its franchises; adequacy and extensions of service; ascertainment of cost of and depreciation in property; annual depreciation rates; and its systems of accounts.

This, on the basis of a connection within the State of New Jersey between a line of the Jersey Central and one of Public Service (the latter a public utility within the meaning of the Act), "not designed or intended by either company as a facility for transmission of electric energy in interstate commerce" and the occurrence at infrequent intervals of an electric phenomenon, of mere momentary duration, designed and intended by no one, and constantly endeavored to be avoided by Public Service and Staten Island, resulting on such occasions in the momentary presence in the system of Staten Island, of energy generated by Jersey Central, slopping over from the lines of Public Service.

That such dual control was not intended by Congress in this situation here before this court is indicated by the declaration of the Act that the Federal regulation provided by the Act shall extend only to those matters which are not subject to regulation by the State.

[10a] Excerpts are compiled in Appendix A to Petitioners' Brief.

Matters involved in the ordinary corporate powers of a corporation of a State are "matters subject to regulation by the State".

In this case the State of New Jersey has since 1910, regulated these matters by legislation and by the functioning of an administrative agency with power of regulation.

If on these considerations it is concluded that Jersey Central is not a "public utility" within the meaning of the Act, then New Jersey Power in acquiring shares of common capital stock of Jersey Central did not acquire the securities of another "public utility" and in acquiring the securities of Jersey Central without having first secured an order of the Commission to do so, did not violate the provisions of the Act.

The Act requires the authorizing order of the Commission only for the acquiring by one "public utility" of the securities of another "public utility".

POINT II.

If it be determined that Jersey Central is a "public utility" within the Act, nevertheless the transaction here in question is not within the jurisdiction of the Commission. The transaction is one subject to regulation by the state and the state has legislatively and administratively acted in regulation thereof.

The Act provides (201 (a)) that Federal regulation as exerted by the Act shall extend "only to those matters which are not subject to regulation by the States."

The transfer of stock in Jersey Central, a New Jersey corporation, to New Jersey Power, another New Jersey corporation, is a "matter subject to regulation" by New Jersey.

The State of New Jersey has subjected such transfer to regulation through legislation. It has under such legislation subjected such transfer to administrative regulation by establishing an administrative commission to that end.

The administrative commission has subjected such transfer to regulation by approving the same upon certain conditions imposed for the protection of investors and consumers, after hearing on notice.

It is respectfully submitted that in consequence the "matter" is excluded from the jurisdiction of the Federal Commission.

The State adopts in support of this point the argument in Points II and III of petitioners' brief.

The State additionally submits that the provisions of Sub-chapter I of the Act throw light upon the intent with which the words in Sub-chapter II considered under this Point were used. Sub-chapters I, II and III are integral parts of the Act.

Sub-chapter I sets up the Commission and relates to its power through issuance of licenses and otherwise to regulate the development of water power and resources.

Sub-chapter II relates to the regulation of Electric Public Utilities engaged in interstate commerce.

Sub-chapter III relates to both licenses under Sub-chapter I and public utilities under Sub-chapter III.

Sub-chapter I provides as to power produced under licenses:[11]

> "When said power or any part thereof shall enter into interstate or foreign commerce the rates charged and the service rendered by any such licensee, or by any subsidiary corporation, the stock of which is owned or controlled directly or indirectly by such licensee, or by any person, corporation, or association purchasing power from such licensee for sale and distribution or use in public service shall be reasonable, nondiscrimihatory, and just to the customer and all unreasonable discriminatory and unjust rates or services are hereby prohibited and declared to be unlawful; *and whenever any of the States directly concerned has not provided a commission or other authority to enforce the requirements of this section within such State or to regulate and control the amount and character of securities to be issued by any of such parties,* or such States are unable to agree through their properly constituted authorities on the services to be rendered, or on the rates or charges of payment therefor, or on the amount or character of securities to be issued by any of said parties, jurisdiction is hereby conferred upon the commission, upon complaint of any person aggrieved, upon the request of any State concerned, or upon its own initiative to enforce the provisions of this section, to regulate and control so much of the services rendered, and of the rates and charges of payment therefor as constitute interstate or foreign commerce and to regulate the issuance of securities by the parties included within this section, and securities issued by the licensee subject to such regulations shall be allowed only for the bona fide purpose of financing and conducting the business of such licensee."

[11] 41 Stat. 1073, 16 U. S. C. A. § 813.

It also provides in the preceding section relating to Commission jurisdiction over rates, security, issues or service:[12]

> "That the jurisdiction of the commission shall cease and determine as to each specific matter of regulation and control prescribed in this section as soon as the State shall have provided a commission or other authority for the regulation and control of that specific matter."

The intent of Congress to preserve the jurisdiction of the States as to matters subject to the jurisdiction of the States appears not alone from the declaration in Section 201 (a), "such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States", but it further appears from the explicit protection given to the States with respect to matters exclusively within the federal jurisdiction over the regulation of interstate transmission and fixing of rates for sales at wholesale in interstate commerce—through provisions for notice to the States[12a] and the setting up of joint boards.[13]

The construction of the Act contended for is not weakened by the fact that Sub-chapter II authorizes "joint hearings" with any State Commission as to matters subject to such State Commission and of the Commission. There are specific matters expressly subject to regulation by both the State Commissions and the Commission. See for illustration, the sections relating to rates of depreciation[14] and as to accounts.[15] Also note the effect of fixing

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[12] 41 Stat. 1073, 16 U. S. C. A. § 812.
[12a] 49 Stat. 847, 16 U. S. C. A. § 824a(a).
[13] 49 Stat. 853, 16 U. S. C. A. § 824h.
[14] 49 Stat. 855, 16 U. S. C. A. § 825a(a).
[15] 49 Stat. 854, 16 U. S. C. A. § 825(a).

interstate wholesale rates upon the fixing of local retail rates.

It is submitted that in this connection too, effect should be given to the rule of statutory construction which in case of any remaining doubt as to the intent of Congress resolves the doubt against intent to invade, displace or suspend the power of the States as to matters that in isolation are local.

The opinion below, in referring to the requisite approval of the transfer and acquisition of Jersey Central stock, held that Federal and State control under the Act was a dual control. It held that there was no conflict of jurisdiction and one could not be presumed. It is contended that the opinion below is legally erroneous in this position. Under the *Shreveport* case[16] the Federal authority is paramount. The court below said however the state could be paramount as to "matters which may affect" intrastate transmission while the Federal Commission was paramount as to "matters which may affect" interstate transmission (the opinion below did not discuss control of matters which might affect both types of transmission) (R. 1134). The State submits that under the Act control by one, of necessity, excludes control by the other (except where duel control is specifically sanctioned). However, the existence of Federal paramount authority which would oust the State of its jurisdiction in matters of stock transfers and acquisitions would also oust the State of its jurisdiction over the facilities used in the transmission of electric energy between Jersey Central and Public Service. This, as has been argued, would be a definite inroad upon the authority of the State over mat-

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[16] *Houston & E. W. Texas R. Co. v. United States*, 234 U. S. 342; see also *Florida v. United States*, 292 U. S. 1.

ters subject to regulation by the State of New Jersey. Unless the intent of Congress as expressed in the jurisdictional limitations of the Act is upheld as herein argued, the authority of the State over purely local utilities may ultimately reach the vanishing point.

Conclusion.

It is respectfully submitted that the judgments of the court below should be reversed in that (1) Jersey Central is not a "public utility" and is not subject to the Commission's regulatory power and (2) even if Jersey Central be a "public utility", no authorization of the Commission was required for the transaction here in question, since such transaction was "subject" to, and was legislatively and administratively subjected to regulation by that State.

Respectfully submitted,

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Of Counsel,
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SUPREME COURT OF THE UNITED STATES.

Nos. 299 and 329.—October Term, 1942.

Jersey Central Power & Light Company, Petitioner, 299 vs. Federal Power Commission. New Jersey Power & Light Company, Petitioner, 329 vs. Federal Power Commission.	On Writs of Certiorari to the United States Circuit Court of Appeals for the Third Circuit.

[May 3, 1943.]

Mr. Justice Reed delivered the opinion of the Court.

These two cases bring here for review the construction of sections 201 and 203(a) of the Federal Power Act, as amended by the Public Utility Act of 1935.[1] These sections are included in Title II, Part II, of the latter act, which Part relates to federal regulation of the business of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale. By these sections, the public utilities subject to the Federal Power Commission are defined and the acquisition of securities of such utilities by any other utility subject to the act is forbidden without authorization of the Commission.

I. After the enactment of the above amendments to the Federal Power Act, and without seeking Commission authorization, the New Jersey Power & Light Company purchased from others than the issuer certain securities of the Jersey Central Power & Light Company. The Federal Power Commission, being of the opinion that both the purchaser and the issuer were public utilities within the definition of the Federal Power Act and that therefore the acquisition of the stock was illegal, on June 7, 1938, entered an order that the purchaser submit information concerning the acquisition of the stock and show cause why the Commission should not proceed to enforce the requirements of the act. To this order, the purchaser answered that the Jersey Central was not a public

[1] 49 Stat. 803, 847, 849, 16 U. S. C. §§ 824, 824(b).

utility within the definition of the act and that the approval by the Federal Power Commission to the acquisition was therefore not required by law. By permission of the Commission, the Jersey Central intervened and made the same contention as to its status. Thus there was presented for determination two questions: first, whether Jersey Central was a public utility under the act; and second, whether if it was a public utility, this acquisition of its stock was permissible in view of the declaration of section 201(a) that federal regulation should "extend only to those matters which are not subject to regulation by the States." This purchase is subject to regulation by New Jersey.

It is admitted that the purchaser, Jersey Power, is a public utility under the act. The Commission after investigation and hearing held that Jersey Central also was a public utility under the act. 30 P. U. R. (N. S.) 33. This holding was based on findings that Jersey Central owns and operates transmission facilities (an electric line) extending from its substation adjacent to its generating plant in South Amboy, New Jersey, to the south bank of the Raritan River in the same state where the line joins the transmission facilities of another company, not here involved, the Public Service Electric & Gas Company. This latter company transmits the energy from the point of junction on the Raritan to a common bus bar[2] in one of its substations, located also in New Jersey at Mechanic Street, Perth Amboy. From the bus bar, Public Service has transmission facilities extending to the mid-channel of Kill van Kull, a body of water between New Jersey and Staten Island, New York. At mid-channel, Staten Island Edison Corporation, another utility, connects with its transmission facilities which extend to its own Atlantic substation on Staten Island. The Commission further found, in the words quoted below, that energy generated in New Jersey by Jersey Central was consumed in New York and energy generated in New York was consumed in New Jersey.[3]

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[2] A bus conductor, or group of conductors, is a switchgear assembly which serves as a common connection for three or more circuits. *American Standard Definitions of Electric Terms*, published by American Institute of Electrical Engineers, p. 97.

[3] 30 P. U. R. (N. S.) 33, 36: "that the transmission facilities described provide a direct and interconnected line for the flow of electric energy between the substation of Jersey Central Power & Light Company located adjacent to its generating plant in South Amboy and Atlantic substation of Staten Island, Edison Corporation on Staten Island in the state of New York, via Mechanic

The evidence upon which these findings were based showed that the energy was delivered from Jersey Central to and from Public Service under contract and that Public Service likewise delivered and received energy under contract to and from Staten Island Edison. Jersey Central had no control over the destination of its energy after it made delivery to Public Service at the Raritan but it did, of course, control the distribution of energy received from Public Service. The deliveries from Jersey Central to Public Service were substantial, above fifty-five million kilowatt hours in each year of the period 1934 to 1937, inclusive. Those from Public Service to Staten Island were smaller for the same period, amounting to three to four million k. w. h. annually and the flow from Staten Island to Public Service aggregated about the same amount. Although, as will appear hereafter, the evidence shows some Jersey Central energy is consumed in New York, the amount is unknown.

The connection between Public Service and Staten Island is maintained primarily to guard the Staten Island distribution against breakdown. It is used for emergencies a few times per year on an average. Surplus energy is occasionally sold. The rest of the time the line is maintained "in balance." This is to avoid a delay of transmission in an emergency. If the connection were not maintained, an appreciable time would be lost in communicating and reestablishing the connection. Any oscillation of the balance, created by increased demand in New York or New Jersey, carries energy in one direction or in another to be consumed on one side or the other of the line between the states. This is called "slop-over" energy. These bulk deliveries were the subject of the sale agreements between Public Srvice and Staten Island.

Since the bus bar into which the Jersey Central energy is fed

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street substation, and electric energy was transmitted over such transmission facilities between such points via Mechanic street substation on numerous occasions during certain days and almost daily throughout 1936, 1937, and to September, 1938; that there is no evidence or testimony of any change in such operations during this period or subsequent thereto; that electric energy transmitted over facilities extending from the substation adjacent to the generating plant of Jersey Central Power & Light Company in South Amboy, New Jersey to Atlantic substation, on Staten Island, in the state of New York, via Mechanic street substation, is generated in the state of New Jersey and consumed in the state of New York; that electric energy transmitted from Atlantic Street substation to the substation of Jersey Central Power & Light Company in South Amboy, New Jersey, via Mechanic street substation, is generated in the state of New York and consumed in the state of New Jersey; . . ."

also receives large amounts of energy from other sources, the facts heretofore detailed do not prove conclusively that energy generated by Jersey Central passes to and is consumed in New York. This further evidence appears from testimony presented by investigators of the Commission. Their examination of Public Service records discloses that there were moments of time between January 26, 1937, and September 6, 1938, when all the energy flowing into the bus bar at Mechanic Street came from Jersey Central and at the same moments energy flowed from Mechanic Street in New Jersey to the Atlantic substation in New York. As no pools of energy exist from which the flow to New York could have been drawn, it necessarily follows that Jersey Central production was instantaneously transmitted to New York. Cf. *Utah Power & Light Co.* v. *Pfost*, 286 U. S. 165. The amount of energy transmitted was small. The evidence was developed from 184 log readings selected from 25,000. Of the 184 log readings, 12 showed this flow of energy from Jersey Central to New York between August 26, 1935, the effective date of the Federal Power Act, and March 14, 1938, the date of the present purchase of stock.[4] Twelve showed such flow shortly after the purchase.

[4] There is dispute as to whether the 184 instances selected for examination were typical. In view of the evidence just detailed as to the service arrangements between Jersey Central and Public Service, and Public Service and Staten Island Edison, this seems of no importance. There is no contention that the energy actually transmitted interstate shall be treated as accidental or that it falls under the de minimis rule. The method of selection is explained as follows:

"Q. . . . Then you have taken some 150 readings out of approximately 25,000 readings. Just why did you take these particular 150, Mr. Grimsley? A. At times when considerable power was going over from Jersey Central and for the same period it was going to Staten Island. That was necessary to make my determination. Now we might get 15,000, I don't know, to compare with those, but the point was to establish certain conditions at time of flow and at times when there was no energy flowing to Staten Island there was no point in taking those readings.

"Q. These are hand-picked readings where you worked toward a particular result and you selected those that would best show what you desired to establish? A. I was trying to get a condition when the energy was coming over from Jersey Central and flowing to Staten Island and over a period that might be considered typical.

"Q. Just a moment—A. (interposing) I don't know unless we go through all of them and compare them with these.

"Q. I suppose it would be pretty easy to pick out 150 other examples when power is flowing from Metuchen substation to Staten Island supplying the Mechanic street load, would it not? A. Oh, I think so, yes. Maybe more." [R. 266.]

The Commission's witness Grimsley spoke of 150 instances, but actual count discloses 184.

This evidence, we think, furnishes substantial basis[5] for the conclusion of the Commission that facilities of Jersey Central are utilized for the transmission of electric energy across state lines.

Petitions for rehearing were denied. An appeal was taken to the Circuit Court of Appeals under the provisions of section 313 of the act.[6] The determination of the Commission was affirmed, 129 F. 2d 183, and in view of the important questions of federal law raised by the petitions for certiorari, we granted review. — U. S. —.

The primary purpose of Title II, Part II, of the 1935 amendments to the Federal Power Act, *supra* note 1, was to give a federal agency power to regulate the sale of electric energy across state lines. Regulation of such sales had been denied to the States by *Public Utilities Commission* v. *Attleboro Steam & Electric Company*, 273 U. S. 83. On account of the development of interstate sales of electric energy, it was deemed desirable by Congress to enter this field of regulation.[7]

II. Petitioners concede that some energy generated by Jersey Central and sold and delivered by it to Public Service passes thereafter to New York. Their contention is that the arrangements by which this energy passes to New York does not make Jersey Central a public utility, within the definition of the act because it "does not own or operate facilities for the transmission of electric energy, or sale of electric energy at wholesale, in interstate com-

[5] "The finding of the Commission as to the facts, if supported by substantial evidence, shall be conclusive." Sec. 313(b), 49 Stat. 860, 16 U. S. C. § 825*l*(b).

[6] The order entered determined that Jersey Central Power & Light Company is a public utility and that the acquisition of its stock by New Jersey Power & Light Company was a violation of section 203(a) of the Federal Power Act. 30 P. U. R. (N. S.) 33, 36. This order fixed the status of Jersey Central as a utility amenable to the provisions of the Act: e. g., rates, sec. 205(a); ascertainment of cost of property, sec. 209(a); accounts, sec. 201. Rochester Telephone Corporation v. United States, 307 U. S. 125; Federal Power Commission v. Pacific Co., 307 U. S. 156; Columbia Broadcasting System v. United States, 316 U. S. 407.

[7] S. Rep. No. 621, 74th Cong., 1st Sess., p. 17:

"In recent years the growth of giant holding companies has been paralleled by the rapid development of the electric industry along lines that transcend State boundaries. To a great extent through the agency of the holding company, local operating units have been tied together into vast interstate systems. As a result the proportion of electric energy that crosses State lines has steadily increased. While in 1928, 10.7 percent of the power generated in the United States was transmitted across State lines, the percentage had increased by 1933 to 17.8. The amount of energy which flowed in interstate commerce in 1933 exceeded the entire amount generated in the country in 1913.

"The new part 2 of the Federal Water Power Act would constitute the first assertion of Federal jurisdiction over this major interstate public utility. The

"gap" created by decisions of this court, urged that the bill, as introduced, would overlap and break down state regulation and submitted amendments designed to avoid this result.[8]

The spokesman for the Association said of these proposed changes:[9] "We have, accordingly, sought to make it as clear as language will that Congress does not in this case intend to regulate anything except interstate power, sold at wholesale." With alterations of expression not affecting their sense, the proposed amendments of § 201(a) were embodied in the section as enacted.

I need not follow in detail the changes which were made in the bill in both branches of Congress. Suffice it is to say that they progressively emphasized the purpose to regulate only those matters which the states could not regulate.

In reporting the revised bill to the Senate, the Committee said:[10]

"Subsection (a) . . . . declares *the policy of Congress to extend that regulation to those matters which cannot be regulated by the States* and to assist the States in the exercise of their regulatory powers, but *not to impair or diminish the powers of any State commission.* (Italics supplied.)

"Subsection (b) defines the scope of this part of the act and the jurisdiction of the Commission. . . . This subsection leaves to the States the authority to fix local rates even in cases where the energy is brought in from another State. In *Pennsylvania Gas Co.* v. *Public Service Commission* (252 U. S. 23), the Supreme Court held that such rates may be regulated by the States in the absence of Federal legislation. The present bill carefully refrains from asserting Federal jurisdiction over these rates. The rate-making powers of the Commission are confined to those wholesale transactions which the Supreme Court held in *Public Utilities Commission* v. *Attleboro Steam & Electric Co.* (273 U. S. 83), to be beyond the reach of the States."

Notwithstanding the statement in the Senate Committee's report on the Senate bill that "The revision has also removed every encroachment upon the authority of the States", the House, not satisfied that State power had been adequately protected, struck out the entire Senate bill by amendment and substituted a new draft. In presenting the amended bill to the House the Committee reported:[11]

"The new Parts (II and III) are designed to meet the situation which has been created by the recent rapid growth of electric

[8] Hearings, *supra*, pp. 1620, 1622.

[9] *Id.*, p. 1638.

[10] Senate Report No. 621, 74th Cong., 1st Sess., p. 48.

[11] House Report No. 1318, 74th Cong., 1st Sess., p. 7.

merce." "A person owning or operating facilities . . . . must own the facilities which transmit—send across—the energy, and this connotes voluntary, intentional action." From the asserted fact that Jersey Central has no control over the energy produced by it after its delivery to Public Service, petitioners conclude that this short transmission and sale, wholly in New Jersey, is an intrastate transaction. Without this separation from the movement across the New Jersey-New York line, the transmission by Jersey Central would fall within the definition of commerce declared by two former decisions of this Court.

In *Public Utilities Commission* v. *Attleboro Steam & Electric Company*, 273 U. S. 83, 86, this Court held in interstate commerce the sale of locally produced electric current at the state boundary with knowledge that the buyer would utilize the energy extrastate. The passage of custody and title at the line was held immaterial. We see no distinction between a sale at or before reaching the state line.

The other case is *Illinois Gas Co.* v. *Public Service Co.*, 314 U. S. 498. In this case, a wholly owned subsidiary bought gas in Illinois from its parent corporation. The parent had transported the gas across the state line and delivered it at a reduced pressure to the subsidiary in Illinois. The subsidiary transported the gas wholly intrastate and sold and, on again reducing pressure, delivered it to an Illinois distributing company. The intrastate movement by the subsidiary was held by us to be a part of interstate commerce. We said that the point at which title and custody passed, without arresting movement, did not affect the essential interstate movement of the business.

But we need not decide whether the intervention of Public Service between Jersey Central and Staten Island Edison and

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decision of the Supreme Court in Public Utilities Commission v. Attleboro Steam & E. Co. (273 U. S. 83) placed the interstate wholesale transactions of the electric utilities entirely beyond the reach of the States. Other features of this interstate utility business are equally immune from State control either legally or practically.

"The necessity for Federal leadership in securing planned coordination of the facilities of the industry which alone can produce an abundance of electricity at the lowest possible cost has been clearly revealed in the recent reports of the Federal Power Commission, the Mississippi Valley Committee, and the National Resources Board. Assertion of the power of the Federal Government in this direction becomes the more important at the time when the Federal Government is compelling the reorganization of holding companies along regional lines. The new part 2 of the Federal Water Power Act seeks to bring about the regional coordination of the operating facilities of the interstate utilities along the same lines within which the financial and managerial control is limited by title I of the bill."

the consequent loss of actual control of the energy by Jersey Central is significant to distinguish the two cases just cited. Petitioners, as we understand their briefs, concede, and rightly so, that power rests in Congress to regulate such a flow of energy from Jersey Central as here occurs. Such a flow affects commerce. Cf. *Wickard* v. *Filburn*, No. 59 this Term, decided November 9, 1942, and cases cited.[8] But petitioners say that Congress did not intend to exercise its full power over interstate transmission and directed only that transmission "in interstate commerce" should be regulated. As contrasted with "affecting commerce" in the Public Utility Holding Company Act of 1935, 49 Stat. 803, §1(c), or the "current of commerce" in the Commodity Exchange Act, 42 Stat. 998, or the broad language of The Bituminous Coal Act, 50 Stat. 83, or the Agricultural Adjustment Act, 50 Stat. 246, the words "in interstate commerce" are said, by petitioners, to be the "strictest test of jurisdiction available to Congress." But the argument, we think, gives no effect to the definition of "transmitted in interstate commerce" as used in this act. In the note below there is set out the pertinent provisions of section 201 which indicate the meaning given the phrase, which provisions are italicized for quick reference.[9] Subsections (a) and (b) show the intent to regulate such transactions as are beyond state power under the *Attleboro* case, *supra*. Subsection (c) defines the electric energy in commerce as that "transmitted

[8] Cf. Peoples Natural Gas Co. v. Federal Power Commission, 127 F. 2d 153, 157; Hartford Electric Light Co. v. Federal Power Com., 131 F. 2d 953, 958.

[9] The Federal Power Act of 1935, 49 Stat. 847:

"Section 201. (a) It is hereby declared that the business of transmitting and selling electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation of matters relating to generation to the extent provided in this Part and the Part next following and of that part of such business which consists of the transmission of electric energy *in interstate commerce* and the sale of such energy at wholesale *in interstate commerce* is necessary to the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States.

"(b) The provisions of this Part shall apply to the transmission of electric energy *in interstate commerce* and to the sale of electric energy at wholesale *in interstate commerce*, but shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line. The Commission shall have jurisdiction over all facilities for *such transmission* or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this Part and the Part next following, over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter.

from a State and consumed at any point outside thereof." There was no change in this definition in the various drafts of the bill. The definition was used to "lend precision to the scope of the bill."[10] It is impossible for us to conclude that this definition means less than it says and applies only to the energy at the instant it crosses the state line and so only to the facilities which cross the line and only to the company which owns the facilities which cross the line. The purpose of this act was primarily to regulate the rates and charges of the interstate energy. If intervening companies might purchase from producers in the state of production, free of federal control, cost would be fixed prior to the incidence of federal regulation and federal rate control would be substantially impaired, if not rendered futile.

Petitioners make the point, however, that this interpretation subjects connected facilities to the Commission's jurisdiction which facilities were deliberately eliminated by Congress. As an illustration they cite the provisions of section 201(a) as they appeared in a predecessor bill.[11] We do not think that the result which the petitioners apprehend follows from our interpretation. The language of section 201(a) and (b) indicates a distinction between the facilities for generation or production and those for transmission. Also, it is sales at wholesale only which are regulated and, finally, Commission power does not extend over all connecting transmitting facilities but only over those which transmit energy actually moving in interstate commerce. Mere connection determines nothing.

Further, we think the definition in subsection (e) of "public utility" covers Jersey Central, since that company owns and op-

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"(c) For the purpose of this Part, electric energy shall be held to be *transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof;* but only insofar as such transmission takes place within the United States.

"(e) The term 'public utility' when used in this Part or in the Part next following means any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part."

[10] S. Rep. No. 621, 74th Cong., 1st Sess., p. 49.

[11] S. 1725, 74th Cong., 1st Sess., February 6, 1935:

"The provisions of this title shall apply to the transmission and sale of electric energy in interstate commerce and to the production of energy for such transmission and sale, but shall not apply to the retail sale of energy in local distribution. The Commission shall have jurisdiction over all facilities for such transmission, sale, and/or production of energy by any means and over all facilities connected therewith as parts of a system of power transmission situated in more than one State. . . ."

erates the transmission line to the Raritan and that line, as a result of the interpretation of interstate commerce in the preceding paragraph, is a facility under Commission jurisdiction by the terms of subsection (b). Subsection (b) declares that the provisions of this part apply "to the transmission of electric energy at wholesale in interstate commerce." This subsection gives jurisdiction over facilities used for such transmission. The business of transmitting and selling electric energy is said to be affected with a public interest and federal regulation of a portion of that business is declared necessary. Section 201(a). The fact that a company is engaged in this business is not determinative of its inclusion in this act. The determinative fact is the ownership of facilities used in transmission. Such use makes the owner or operator of such facilities a public utility under the act (e). We conclude, therefore, that Jersey Central is a public utility under this Act. It is quite clear, however, from section 201 that although a company may be a public utility under subsection (e) all of its transactions do not thereby fall under the regulatory power of the Commission. In the next section of this opinion, we consider whether this purchase of stock is subject to Commission regulation.

III. Although only the facilities of a public utility used in the transmission or sale at wholesale of electric energy in interstate commerce or the rates and charges for such energy are subjected by Parts II and III of the act to regulation by the Federal Power Commission, that Commission has general power over the issue of all securities or assumption of all obligations by such a public utility.[12] This generality of control is in turn limited by an exception in the case of utilities organized and operating in a state where its security issues are regulated by a state commission.[13]

In the section of Part II in question here, however, which prohibits the purchase of the security of any other public utility, without authorization of the Commission, there is no exception of

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12 "Sec. 204. (a) No public utility shall issue any security, or assume any obligation or liability as guarantor, indorser, surety, or otherwise in respect of any security of another person, unless and until, and then only to the extent that, upon application by the public utility, the Commission by order authorizes such issue or assumption of liability. . . ."

There is the same extent of control over records and accounts. Section 301(a).

13 Sec. 204. "(f) The provisions of this section shall not extend to a public utility organized and operating in a State under the laws of which its security issues are regulated by a State commission."

any kind.[14] Consequently the action of Jersey Power, admittedly a public utility under Part II, in purchasing the stock of Jersey Central, hereinbefore held to be a public utility under the act, requires Commission approval, unless some other provision of law exempts the transaction from this control. Petitioners find this exemption in the concluding words of section 201(a), "such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States."[15] The Commission defies that this limitation is to be read into section 203(a). If the limitation is to be read as applying to section 203(a), the limitation exempts this transaction and the purchase here involved is beyond the reach of Commission power for the reason that the purchase could be and the transfer is regulated by the State of New Jersey.[16]

It will be observed that section 201(a) is a declaration of the end sought by the enactment of this Part, that is, federal regulation of the generation, transmission and sale of electric energy in commerce. The sounder conclusion, it seems to us, is that this limitation is directed at generation, transmission and sale rather than the corporate financial arrangements of the utilities engaged in such production and distribution. This conclusion finds strong support in the fact that not only section 203(a), here under discussion, but sections 204(a),[17] 208[18] and 301(a)[19] regulate matters obviously subject to state regulation. If the scope of the limita-

[14] "Sec. 203. (a) No public utility shall sell, lease, or otherwise dispose of the whole of its facilities subject to the jurisdiction of the Commission, or any part thereof of a value in excess of $50,000, or by any means whatsoever, directly or indirectly, merge or consolidate such facilities or any part thereof with those of any other person, or purchase, acquire, or take any security of any other public utility, without first having secured an order of the Commission authorizing it to do so. . . ."

[15] See Note 9, *supra*.

[16] Section 19 of the Act of April 21, 1911, as amended. New Jersey Stat. Ann. 48:3-10.

[17] See Note 12, *supra*.

[18] "Sec. 208. (a) The Commission may investigate and ascertain the actual legitimate cost of the property of every public utility, the depreciation therein, and, when found necessary for rate-making purposes, other facts which bear on the determination of such cost or depreciation, and the fair value of such property.

"(b) Every public utility upon request shall file with the Commission an inventory of all or any part of its property and a statement of the original cost thereof, and shall keep the Commission informed regarding the cost of all additions, betterments, extensions, and new construction." 49 Stat. 853, 16 U. S. C. § 824(g).

[19] "Section 301. (a) Every licensee and public utility shall make, keep, and preserve for such periods, such accounts, records of cost-accounting procedures, correspondence, memoranda, papers, books, and other records as the

tion was as broad as petitioners contend, none of these sections just referred to would be effective. Section 203(a) would be a nullity as of course the disposition and acquisition of facilities, merger, consolidation or purchase of securities by their utilities may be regulated by the States. But this does not follow where a specific limitation is placed on the issue of securities by section 204. Section 204 is not rendered useless by subsection (f) since it is applicable to states without state commissions authorized to regulate security issues. See notes 12 and 13, *supra*. In view of the contemporaneous legislation as to holding companies (Title I, Public Utility Act of 1935, 49 Stat. 803) which left independent operating companies or subsidiaries of unregistered holding companies free to acquire securities in other operating companies,[20] it is difficult to conclude that by section 201(a) Congress limited the regulation of the acquisition of securities by section 203(a).[21]

The legislative history points to this result. When S. 2796, containing the progenitor of the disputed section, was reported by the Committee on Interstate Commerce of the Senate,[22] section 201(a) concluded:

"It is further declared to be the policy of Congress to extend Federal regulation to those matters which cannot be regulated by the States, and also to exert Federal authority to strengthen and assist the States in the exercise of their regulatory powers and not to impair or diminish the powers of any State commission."

The same bill had sections 208(a) and 301(a), just referred to, which did regulate matters which could be regulated by the states. After its passage through the Senate in this form, the bill went to the House and 201(a) was there amended by the Committee on Interstate and Foreign Commerce (H. Rep. No. 1318, 74th Cong., 1st Sess., June 24, 1935) to conclude, as it now does, "such

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Commission may by rules and regulations prescribe as necessary or appropriate for purposes of the administration of this Act, including accounts, records, and memoranda of the generation, transmission, distribution, delivery, or sale of electric energy, the furnishing of services or facilities in connection therewith, and receipts and expenditures with respect to any of the foregoing: *Provided, however*, That nothing in this Act shall relieve any public utility from keeping any accounts, memoranda, or records which such public utility may be required to keep by or under authority of the laws of any State. . . ." *Id.* 854, 16 U. S. C. § 825.

[20] Sec. 9(a) and (b), 49 Stat. 817.

[21] S. Rep. No. 621, 74th Cong., 1st Sess., p. 50, in referring to what is now § 203(a) said: "In this way the Commission would have authority to keep the same kind of check upon the creation of spheres of influence among operating companies that the Securities and Exchange Commission has over holding companies under title I."

[22] *Id.*

Federal regulation, however, to extend only to those matters which are not subject to regulation by the States." The report, although it commented on the section, did not mention this change as one of substance from the conclusion of the Senate bill. H. Rep. No. 1318, 74th Cong., 1st Sess., p. 26. Sections 208 and 301, with their regulation of matters subject to state regulation, remained unchanged. More significant even than these indicia of the scope of the concluding words of section 201(a) is the fact that the Committee which adopted the new concluding words, adopted also section 204, subsection (f), withdrawing federal regulation from security issues where such issues are "regulated by a State commission." While, of course, this may have been done to make certain that state power would not be infringed, such meticulous care was entirely unnecessary, if the wording of section 201(a), simultaneously added, had the effect now urged.[23] One might deduce from the language of the report in the House that the precise question at issue here was in the mind of the House Committee and was resolved in accord with our conclusion.[24] From this record of the pains taken by the Congress to make clear the respective responsibilities of federal and state authorities, we conclude that power was given the Federal Power Commission by section 203 to regulate the present transaction.

The judgment of the Circuit Court of Appeals is

Affirmed.

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[23] The language added to section 201(a) and section 204(f) is practically identical with the suggestions made by the National Association of Railroad and Utility Commissioners. Senate Hearings, Committee on Interstate Commerce, Public Utility Holding Company Act of 1935, p. 748-51.

[24] Public Utility Act of 1935, H. Rep. No. 1318, 74th Cong., 1st Sess., General Purpose of Title. "Part II gives control over security issues of interstate operating companies in cases where no State commission has control and over the consolidation, purchase, and sale of interstate operating properties." Page. 8.

Sectional Analysis of Bill:

"Section 203. Disposition of Property; Consolidations; Purchase of Securities

"Under the provisions of this section, approval must be secured for the sale, lease, or other disposition by a public utility of all of its facilities subject to the jurisdiction of the Commission, or any part of the facilities in excess of a value of $100,000, and for mergers or consolidations of such facilities or for the purchase by a public utility of the securities of any other public utility company. Commission approval of an acquisition, consolidation, or control would remove such transaction from the prohibitory provisions of any other law." Page 28.

Section 204:

"The requirement of subsection (f) of the Senate bill that applicable State laws must be complied with before Commission approval may be given, has been changed to authorize security issues without Federal approval where such issues are regulated by a State commission in which the public utility is organized and operating." Page 28.

SUPREME COURT OF THE UNITED STATES.

Nos. 299, 329.—October Term, 1942.

Jersey Central Power & Light Company, Petitioner,		
299	*vs.*	On Writs of Certiorari to the United States Circuit Court of Appeals for the Third Circuit.
Federal Power Commission.		
New Jersey Power & Light Company, Petitioner,		
329	*vs.*	
Federal Power Commission.		

[May 3, 1943.]

Mr. Justice Roberts.

The sole question is whether Jersey Central Power & Light Company is a public utility within the meaning of subchapter II of the Federal Power Act.

The company's business is the generation of electricity within New Jersey, and distribution of it in the State, principally by retail sale to the public. Its physical property is within New Jersey. It neither owns nor operates any facility which crosses a state line.

Jersey Central exchanges electric energy with another utility, Public Service. The physical hook-up by which this exchange is effected is such that Jersey Central at times transmits electricity to Public Service and at times receives electricity from Public Service. Jersey Central owns and operates a transmission line seven-eighths of a mile long extending from its power plant to another point in the State where the line connects to a cable owned by Public Service running to a station owned by the latter at Perth Amboy, New Jersey. Over these connecting facilities exchanges of two sorts are made. One is of emergency service whereby, in case of a break down in either company's system, energy is drawn from that of the other. The second is of economy flow energy, delivery of which takes place to either company when the other is able to generate at less cost than the receiving company could with its own facilities. The savings effected by the latter exchange are divided between the companies.

Any flow of electric energy from Jersey Central to Public Service is carried from the point of connection over Public Service cable to a so-called bus bar, a facility of Public Service located in New Jersey having a number of connections, one of which is with a transmission line connecting the Public Service system with that of Staten Island Edison in the State of New York. Over this line Public Service and Staten Island exchange from time to time emergency service. To accomplish this the lines of the two companies are always connected so that, whenever there is demand for additional energy by either company, the current flowing from the plant of the other supplies the deficiency until a speed up of the generators of the receiving company takes care of the load and stops the draught upon the energy supply of the other.

The lines of Jersey Central and Public Service are likewise always connected so that, in case of emergency, some of the energy generated by Jersey Central may pass over the lines of Public Service or vice versa. Thus energy generated by any of the three systems at times reaches that of one of the others in case of a deficiency of generation on the line of that other. This current, passing for short periods from time to time, due to an imbalance of potential between the interconnected systems, is called slop-over current.

Jersey Central has no contractual relations with Staten Island and does not sell it any energy. Jersey Central's relations with Public Service are independent of any contractual relations between the latter and Staten Island. At times when energy is flowing from Jersey Central to Public Service it is also flowing from Public Service to Staten Island and, in fact, at such times, some of the energy sold by Jersey Central to Public Service passes from Public Service to Staten Island under Public Service's contractual arrangements with Staten Island.

On the basis of these facts, the Commission held that Jersey Central owned and operated transmission facilities utilized for the transmission of electric energy in interstate commerce, and was, therefore, a public utility within the meaning of the Act, although the company sells no electricity directly in interstate commerce.

I am of opinion that the provisions of the Act require the contrary conclusion, and this reading of the statute is powerfully reinforced when the mischief intended to be remedied and the legislative history of the Act are considered.

There is no dispute concerning the exigency which moved Congress to adopt the statute. It had been settled that the transmission and sale of a commodity, such as electricity or gas, produced in one state, transported and furnished directly to consumers in another state, in interstate commerce, did not preclude regulation of the rates to the consumer by the state of delivery.[1] In 1927, however, this court held that where a company generated electric energy and transmitted it, under contract, to another public utility in an adjoining state, at the state line, whence the purchasing company transmitted and sold the energy to its consumers, the rate at which the first company sold to the second was not subject to regulation by the authorities of the state of origination.[2] The court stated: "The rate is therefore not subject to regulation by either of the two States in the guise of protection to their respective local interests; but, if such regulation is required it can only be attained by the exercise of the power vested in Congress." It is clear that the mischief to be remedied was the incompetence of the states to regulate rates for the sale by the producer of electricity at wholesale to be transmitted and delivered to an extra-state utility at or across a state line. This was the problem and the only problem which confronted the Congress. The legislation itself discloses that, in enacting Part II of the Act, Congress did not go beyond the needs of the situation.

Jersey Central's security issues are not subject to regulation under § 203 unless it is a public utility within the definition of the Act. To determine whether it is, we must turn to § 201. Subsection (e) defines a public utility as "any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part." We must look to other provisions of the section to ascertain what facilities are subject to the Commission's jurisdiction.

Subsection (a) reads: "It is hereby declared that the *business* of transmitting and selling electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation of matters relating to generation to the extent provided in this Part . . . and of that part of such *business* which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest, *such Federal regula-*

[1] Pennsylvania Gas Co. v. Public Service Commission, 252 U. S. 23.

[2] Public Utilities Commission v. Attleboro Steam & Electric Co., 273 U. S. 83.

tion, however, to extend only to those matters which are not subject to regulation by the States." (Italics supplied.)

It is conceded that Jersey Central, as respects generation and sale of the energy in question, and as respects also its security issues, was, at the date of adoption of the federal Act, and still is, subject to regulation under the law of New Jersey and that law does regulate those matters.[3]

The nature of Jersey Central's dealing with Public Service certainly does not fairly fall within the scope of the statutory description of the "business" of transmitting and selling electric energy in interstate commerce. But, out of abundance of caution, Congress added that the federal regulation should extend only to those matters which are not subject to regulation by the States. Language could not be plainer, nor more clearly exclude the present case. Congress desired to fill the gap left by the inability of the states to regulate certain forms of interstate transmission and sale. Congress made clear that it intended to go no further. The opinion of the court ignores this fundamental declaration of purpose and policy and reads as an independent mandate *in vacuo* the words of subsection (e). This I think is not a fair construction.

Subsection (b) provides: "The provisions of this Part shall apply to the *transmission* of electric energy in interstate commerce and to the *sale* of electric energy at wholesale *in interstate commerce, but shall not apply to any other sale of electric energy.*" (Italics supplied.) Here again Congress is at pains to restrict the federal regulation to a commercial transaction in interstate commerce to which the company to be regulated is a party.

The electric current which sometimes reaches Staten Island is, no doubt, "propelled" in some measure by Jersey Central's dynamos, but whether the current shall go to Staten Island or be used within the State is a matter wholly beyond Jersey Central's control in point either of law or of fact. Public Service may or may not choose to transmit and sell the energy interstate as a part of the interstate business which is subject to regulation by the Commission. The current flows beyond the State line only because Public Service maintains wires for that purpose and turns the current into them. What § 201 authorizes the Commission to regulate is "that part of such business which consists of the

[3] N. J. Rev. Stats., 1937, Title 48, chaps. 1 to 3; N. J. Stats. Ann. 48: 1-1 to 48:3-20.

transmission of electric energy in interstate commerce." Jersey Central is not engaged in the business of transmitting electric energy beyond the point of connection with Public Service's system, certainly not beyond the bus bar where Public Service alone determines its destination. Nor is Jersey Central engaged in interstate commerce because, after the current reaches the bus bar of Public Service, that company diverts it to Staten Island.

The construction now given to the Act makes the Commission's power to regulate Jersey Central depend, not on the nature of its own business, as § 201 (a) and (b) plainly require, but on the interstate character of the business of Public Service, over which Jersey Central has no control and which is subject to regulation by the Commission. § 201 (b) and (e). I can find no support in the language, history or avowed purposes of the Act for such a construction. Moreover, it is in flat contradiction to the words of § 201 (a), (b), and (e), which, when read together, explicitly exclude from the jurisdiction of the Commission a "person" who "owns or operates facilities" otherwise subject to the jurisdiction of the Commission by providing, in § 201 (a), that the federal regulation is "to extend only to those matters which are not subject to regulation by the States." Jersey Central is engaged in generating electricity which it sells and delivers to Public Service, all within the State. When the present Act was adopted it was not doubted, and in the light of our decisions it could not be, that the seller's business was intrastate and subject to state regulation. The manufacture and sale of a product wholly within a state is not interstate commerce even though the product is destined by the buyer to be shipped out of the state in interstate commerce.[4] That this is equally the case where the product produced and sold within the state is gas or electricity is implicit in our decisions.[5] As will presently appear more in detail, while it was the purpose of Congress, in enacting the Federal Power Act to extend the national control over the interstate transmission and sale of electrical energy, which had been held to be beyond the control of the states, the purpose was equally to preserve unim-

[4] See Chassaniol v. Greenwood, 291 U. S. 584; Parker v. Brown, 317 U. S. 341, 360, 361, and cases cited.

[5] Union Dry Goods Co. v. Public Service Corporation, 248 U. S. 372; Public Utilities Commission v. Landon, 249 U. S. 236, 245; Pennsylvania Gas Co. v. Public Service Commission, 252 U. S. 23; Missouri v. Kansas Gas Co., 265 U. S. 298, 308; East Ohio Gas Co. v. Tax Commission, 283 U. S. 465, 471; cf. Utah Power & Light Co. v. Pfost, 286 U. S. 165; Coverdale v. Pipe Line Co., 303 U. S. 604, 611.

paired the existing state power of regulation over intrastate production and sale. The provisions of § 201 to which I have referred were introduced into the legislation which became the Federal Power Act in the course of its progress through Congress with the repeatedly declared object of accomplishing that precise purpose.

I submit that to argue that, as Jersey Central's seven-eighths mile intrastate line which connects with the lines of its intrastate customer, Public Service, is a facility over which flows energy which sometimes ultimately finds its way from Public Service's system into New York, and, hence, a facility for transmission of electric energy interstate, ownership of which subjects the owner to the Commission's jurisdiction, is to tie together two phrases found in separate provisions of the Act and to ignore the statute's provisions viewed in their integrity and entirety. By this process any desired result may readily be reached.

I conclude that the provisions of § 203[6] relating to regulation of security issues should not be considered since § 201 wholly excludes Jersey Central from the scheme of control established by the Act. But if this conclusion were less obvious from the face of the Act, the legislative history is convincing.

When a proposed bill first came before a committee of the House of Representatives, the chairman of the Federal Power Commission, its sponsor, said:[7]

"The new title II of the act is designed to secure coordination on a regional scale of the Nation's power resources and to fill the gap in the present State regulation of electric utilities. *It is conceived entirely as a supplement to, and not a substitute for State regulation.*" (Italics supplied.)

Section 201(a) of the bill as presented granted the Commission control of the "production" of electric energy, and "over all facilities" for its transmission and sale in interstate commerce, "and over all facilities connected therewith as parts of a system of power transmission situated in more than one State." . . .

The National Association of Railroad and Utility Commissioners, while recognizing the need of federal legislation to fill the

[6] It is to be noted that, even if Jersey Central were a utility within the Act, the proviso in § 201(a) limits the jurisdiction of the commission under § 203 respecting the company's acquisition and disposition of facilities and issue of securities, just as it limits the commission's authority over other phases of the business, since these matters are subject to regulation, and are, in fact, regulated by New Jersey.

[7] Hearings on H. R. 5423 before House Committee on Interstate and Foreign Commerce, 74th Congress, 1st Session, p. 384.

utilities along interstate lines. . . . Under the decision of the Supreme Court of the United States in *Public Utilities Commission* v. *Attleboro Steam & E. Co.* (273 U. S. 83), the rates charged in interstate wholesale transmission may not be regulated by the States. Part II gives the Federal Power Commission jurisdiction to regulate these rates. A 'wholesale' transaction is defined to mean the sale of electric energy for resale and the Commission is given no jurisdiction over local rates even where the electric energy moves in interstate commerce.

"Part II gives control over security issues of interstate operating companies in cases where no State commission has control and over the consolidation, purchase, and sale of interstate operating properties. . . .

"*The bill takes no authority from State commissions* and contains provisions authorizing the Federal Commission to aid the State commissions in their efforts to ascertain and fix reasonable charges. . . . *Probably, no bill in recent years has so recognized the responsibilities of State regulatory commissions as does title II of this bill.*" (Italics supplied.)

In Conference Committee § 201 (a) (b) took its present form, which is the language of the House bill in all particulars here material. In the light of this history it is evident the Congress specifically refrained from the regulation of the business of any utility whose business transactions, especially as respects transmission and sale of energy, state authority could regulate. Such is the instant case.

Both the language of the Act and the legislative history show that Congress did not intend to regulate matters affecting commerce, as well as commerce itself. It is interesting to compare, in this connection, other statutes enacted by the same Congress. Three adopted in July and August 1935 covered activities "affecting" commerce;[12] three, including the Federal Power Act in question, adopted in August 1935 did not cover activities "affecting" commerce.[13] Thus the legislature's discriminating use of language argues strongly for denial of the jurisdiction the Commission asserts.

I think the judgment should be reversed.

The CHIEF JUSTICE and MR. JUSTICE FRANKFURTER concur in this opinion.

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[12] See National Labor Relations Act, § 2(7), 49 Stat. 449, 450, 29 U. S. C. § 152(7); Public Utility Holding Company Act, § 1(c), 49 Stat. 803, 804, 15 U. S. C. § 79(c); Bituminous Coal Conservation Act, § 1, 49 Stat. 991, 992.

[13] See Federal Power Act, § 201(b), 49 Stat. 838, 847, 16 U. S. C. § 824(b); Motor Carrier Act, § 202(b), 49 Stat. 543, 49 U. S. C. § 302(b); Federal Alcohol Administration Act, § 3, 49 Stat. 977, 978, 27 U. S. C. § 203.